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ABSTRACT

This document contains the appendices to the 1989 annual report of the Senate Special Committee on Aging which: (1) describes actions during 1989 by the Congress, the federal administration, and the U.S. Senate Special Committee on Aging, that are significant to America's older citizens; and (2) summarizes and analyzes the federal policies and programs that are of the most continuing importance for older persons, their families, and for those who will become older Americans in the future. Appendix 1 contains the annual report of the Federal Council on Aging. Appendix 2 contains a report from federal departments and agencies, including the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Development, the Interior, Justice, Labor, State, Transportation, and the Treasury; ACTION; the Commission on Civil Rights; the Consumer Product Safety Commission; the Environmental Protection Agency; the Equal Employment Opportunity Commission; the Federal Communications Commission; the Federal Trade Commission; the General Accounting Office; Legal Services Corporation; the National Endowment for the Arts; the National Endowment for the Humanities; the National Science Foundation; the Office of Consumer Affairs; the Pension Benefit Guaranty Corporation; the Postal Service; the Railroad Retirement Board; the Small Business Administration; and the Veterans' Administration. (NB)

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101st Congress
2d Session

SENATE

Rept. 101-249
Volume 2

DEVELOPMENTS IN AGING: 1989
VOLUME 2—APPENDIXES

A REPORT

OF THE

SPECIAL COMMITTEE ON AGING
UNITED STATES SENATE

PURSUANT TO

S. RES. 66, SEC. 19, FEBRUARY 28, 1989

Resolution Authorizing a Study of the Problems
of the Aged and Aging

March 6 (legislative day, January 23), 1990.—Ordered to be printed

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26-386 WASHINGTON : 1990

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LETTER OF TRANSMITTAL

U.S. Senate,
Special Committee on Aging,
Washington, DC, February 28, 1990.

Hon. J. Danforth Quayle,
President, U.S. Senate,
Washington, DC.

Dear Mr. President: Under authority of Senate Resolution 66, agreed to February 28, 1989, I am submitting to you the annual report of the U.S. Senate Special Committee on Aging, Developments in Aging: 1989, volume 2.

Senate Resolution 4, the Committee Systems Reorganization Amendments of 1977, authorizes the Special Committee on Aging "to conduct a continuing study of any and all matters pertaining to problems and opportunities of older people, including but not limited to, problems and opportunities of maintaining health, of assuring adequate income, of finding employment, of engaging in productive and rewarding activity, of securing proper housing and, when necessary, of obtaining care and assistance." Senate Resolution 4 also requires that the results of these studies and recommendations be reported to the Senate annually.

This report describes actions during 1989 by the Congress, the administration, and the U.S. Senate Special Committee on Aging, which are significant to our Nation's older citizens. It also summarizes and analyzes the Federal policies and programs that are of the most continuing importance for older persons, their families, and for those who hope to become older Americans in the future.

On behalf of the members of the committee and its staff, I am pleased to transmit this report to you.

Sincerely,

David Pryor, *Chairman,*

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DEVELOPMENTS IN AGING: 1989

VOLUME 2—APPENDIXES

February 28, 1990.—Ordered to be printed

Mr. Pryor, from the Special Committee on Aging,
submitted the following

REPORT

APPENDIXES

Appendix 1

ANNUAL REPORT OF THE FEDERAL COUNCIL ON THE AGING

December 15, 1989.

Dear Mr. Chairman: On behalf of the Federal Council on the Aging, I am pleased to submit a preliminary summary of the 1989 annual report.

This document examines the history and present membership of the Council. It also highlights the various positions taken by the Council on a number of legislative and other issues concerning the well-being of the elderly. We are hopeful that the Council's view will be considered as the 101th Congress convenes for its second session.

We appreciate the continuing interest of the Special Committee on Aging and look forward to another year of cooperative efforts with committee members and staff toward our mutual goal of service to older Americans.

Sincerely,

Ingrid C. Azvedo, *Chairman.*

Summary of the 1989 Annual Report

I. INTRODUCTION

A. Background

The Federal Council on the Aging (FCoA) is the functional successor to the earlier and smaller Advisory Council on Older Americans, which was created by the 1965 Older Americans Act. In 1973, when the FCoA was created, Congress was concerned about Federal responsibility for the interests of older Americans, and the breadth of vision that such responsibility would reflect. Having decided to upgrade the existing advisory committee, Congress patterned the legislative language authorizing the FCoA after the charter of the U.S. Commission on Civil Rights.

The FCoA is authorized by Section 204 of the Older Americans Act, as amended. The Council is composed of 15 members appointed 5 members each by the President, the House of Representatives, and the Senate. Council members, who are appointed for 3-year terms, represent a cross-section of rural and urban older Americans, national organizations with an interest in aging, business and labor, and the general public. According to statute, at least nine members must themselves be older individuals.

The President selects the Chairperson of the Council from the appointed members. The FCoA is mandated to meet at least quarterly, and at the call of the Chairperson.

Functions of the Council include:

—Continually reviewing and evaluating Federal policies and programs affecting the aging for the purpose of appraising their value and their impact on the lives of older Americans;

—Serving as spokesperson on behalf of older Americans by making recommendations about Federal policies regarding the aging and federally conducted or assisted programs and other activities relating to or affecting them;

—Informing the public about the problems and needs of the aging by collecting and disseminating information, conducting or commissioning studies and publishing their results, and by issuing reports; and

—Providing public forums for discussing and publicizing the problems and needs of the aging and obtaining information relating to those needs by holding public hearings and by conducting or sponsoring conferences, workshops, and other such meetings.

The Council is required by law to prepare an annual report for the President by March 31 of the ensuing year. Copies are distributed to Members of Congress, governmental and private agencies, institutions of higher education, and individual citizens interested in FCoA activities.

Funds appropriated for the Council are included in the overall appropriation of the Department of Health and Human Services (DHHS). These funds are used to underwrite meetings of the Council, to support staff, and publish information tracts authorized by the Council.

The results of its public meetings and activities concerning issues and policies affecting older Americans are shared with the President, Congress, the Secretary of DHHS, the Assistant Secretary for Human Development Services (HDS), the Commissioner of the Administration on Aging (AoA), National and State Aging organizations, and others interested in the well-being of older Americans.

B. Members of the Federal Council on the Aging

Ingrid C. Azvedo, Elk Grove, CA, Chairman, appointed to a 3-year term ending in January 1992. Mrs. Azvedo was appointed to her second term as Council Chairman by President Reagan in 1989.

Mrs. Azvedo has been advocating for senior programs through the California legislature and Governor's office for many years. She maintains an active schedule of speaking engagements throughout the State of California, discussing senior issues and programs both in the private and public sectors.

Oscar P. "Bob" Bobbitt, Austin, TX, Vice Chairman, upon the recommendation of House Majority Leader Jim Wright. Mr. Bobbitt was appointed by House Speaker "Tip" O'Neill to a second 3-year term ending May 1991.

In February 1984, he became executive director of the Texas Department on Aging.

June Allyson, Los Angeles, CA, appointed to a 3-year term ending in January 1992 by former President Reagan. Ms. Allyson has been an actress working through the Jerico Group in Los Angeles since 1944.

Virgil S. Boucher, Peoria, IL, appointed by the Speaker of the House to a 3-year term ending in May 1990. Mr. Boucher is an active advocate for programs dealing with crimes against the elderly.

Newton B. Dodson, Clarksdale, MS, appointed by the Senate to a 3-year term ending in August 1990. Mr. Dodson is currently chief executive officer of a community mental health center.

Frances "Peg" Lamont, Aberdeen, SD, appointed by President Reagan to a 3-year term ending in December 1986. Mrs. Lamont was reappointed by the Senate Majority Leader, and is presently serving her second 3-year term on the Council. Her current term expires in February 1990.

Mrs. Lamont served 14 years in the South Dakota State legislature.

Tessa Macaulay, Deerfield Beach, FL, appointed by the House to a second 3-year term ending in August 1992. Ms. Macaulay is Coordinator of Gerontological Programs at Florida Power & Light Co.

Mary J. Majors, Cedar Falls, IA, appointed by the Senate to a second 3-year term ending in February 1992. Mrs. Majors is retired, and is active in all types of volunteer work.

Josephine K. Oblinger, Springfield, IL, appointed by the House to a second 3-year term ending in March 1992. Mrs. Oblinger has an extensive career as a State Legislator. Currently, she is Director of Senior Involvement in the Office of Governor James R. Thompson.

Kathleen L. Osborne, Los Angeles, CA, appointed by President Reagan to a 3-year term ending in January 1992. Ms. Osborne is currently executive assistant to and office manager for former President Reagan. She is a native of California.

Raymond Raschko, Spokane, WA. Mr. Raschko was appointed on August 11, 1989, by the House Speaker to serve the remainder of a 3-year term ending in July 1990.

Mr. Raschko serves as Director of Elderly Services with the Spokane Community Mental Health Agency, and as a member of the Washington State Long-Term Care Commission.

Patricia A. Riley, Brunswick, ME, appointed by the Senate Majority Leader to a 3-year term ending in May 1992. Ms. Riley is currently President of the nonprofit Center for Health Policy Development and executive director of its affiliate, the National Academy for State Health Policy. She continues her business as a consultant in aging and health care, and is adjunct faculty in the graduate school of the University of Southern Maine where she teaches aging policy.

Gloria Sherwood, Beverly Hills, CA, appointed to a 3-year term ending in December 1990 by former President Reagan. Ms. Sherwood is Manager for the Residential Leasing Department at Merrill Lynch Realty Company in Beverly Hills. She is currently a Psychotherapist at the Beverly Hills Mental Health Center.

Norman E. Wymbs, Boca Raton, FL, appointed to a 3-year term ending in January 1992 by former President Reagan. Mr. Wymbs is a former Mayor of the City of Boca Raton. He has been a sole proprietor in private investments since 1968.

E. Don Yoak, Spencer, WV, appointed on July 27, 1989, by the Senate Majority Leader to a 3-year term ending in July 1992. Mr. Yoak worked in the West Virginia House of Delegates until the session ended. He is retired from the West Virginia Department of Highways, and is a native of West Virginia.

C. Calendar 1989 Meeting Dates

The Council met four times during the year 1989, as required by the Older Americans Act. The meeting dates were March 20 and 21, June 7 and 8, August 30 and 31, and November 8 and 9. The meetings were held in Washington, D.C.

All FCoA meetings were announced in the Federal Register and notices of the meetings sent to representatives of national organizations, staff of various Federal agencies, and to congressional Members and committees interested in or responsible for aging. Minutes are distributed to individuals who attended the meetings and to any interested parties who request them. Publications and documents pertinent to official actions are maintained in the Office of the Council and are available to the general public. The FCoA mailing address is: Room 4280, Wilbur J. Cohen Federal Building, 330 Independence Avenue, S.W., Washington, D.C. 20201-0001.

D. Council Meetings Scheduled for Calendar 1990

In calendar year 1990, the Council will meet February 14-15-16, May 16-17, August 22-23, and November 14-15.

II. ACTION OF THE FEDERAL COUNCIL ON THE AGING DURING CALENDAR YEAR 1989

A. Development of a Plan for a 1991 White House Conference on Aging

Following the plan first detailed in its 1986 Annual Report to the President, and developed in 1987 and 1988, the Federal Council on the Aging (FCoA) let a contract to the University of Illinois at Chicago to develop an orderly, relevant and economically reasonable scenario for the 1991 White House Conference on Aging. As part of the plan development the FCoA held a Forum during its November 1988 meeting. The Forum was part of the Gerontological Society of America Conference held in San Francisco. The Council, following the mandate of the 1987 Reauthorization of the Older Americans Act (P.L. 100-175), submitted the resultant plan to the President and to the Secretary of Health and Human Services on March 22, 1989.

B. Intra-State Targeting of Federal Funds to Older Americans Act Designated Groups

So that a clearer picture might be drawn as to how States were attempting to follow the Congressional mandate for targeting Older Americans Act funds and services to the frail, low income, and minority elderly, the FCoA held a forum during its August, 1988 meeting in Washington, D.C. The Council learned that this issue was becoming ever-more contentious, with several State Departments on Aging facing legal action as a result of their intra-State funding formulas.

In order to help assure that sufficient information would be available to determine ways to adequately address these evolving issues, particularly in view of the approaching reauthorization of the Older Americans Act in 1991, the Council invited the Acting Deputy Commissioner on Aging and the Director of Census Programs of the Population Division of the Bureau of the Census to brief them on the special tabulations system and the needs of the Aging Network for specifically designed special tabulations to assist in targeting. Following this briefing, the Council issued a recommendation to the Acting Commissioner on Aging strongly urging that the Administration on Aging convene, as soon as possible, a working group to discuss and develop recommendations for the nature and content of special census tabulations relating to aging programs. This recommendation further advised that the group should include representatives from the FCoA, the Administration on Aging, various levels of the Aging Network, the Bureau of the Census, and the Interagency Task Force on Aging Data.

In light of recent changes which impact the distribution of Older Americans Act Funds to American Indians, Alaskan Natives, and Native Hawaiians (Title VI), particularly the increasing numbers of tribes that have become eligible to receive these dollars since the required tribe size was reduced to 50 individual elders, the Council issued a recommendation in opposition to the limitation or "capping" of the number of eligible tribes.

C. Catastrophic Health Insurance and Long-Term Care

Following a briefing during their June 1989 meeting by representatives of the Health Care Financing Administration (HCFA) on the content and implementation of the Medicare Catastrophic Coverage Act, the Council issued a recommendation that decision on the method of assessing premiums to participants under the Act be postponed for 1 year. The recommendation was forwarded to the Chairmen of the House Ways and Means Committee and the Senate Finance Committee. The legislation has since been repealed.

D. Older Workers and Employment

During their August Quarterly Meeting, the Council studied various aspects of the involvement of older persons in the workplace. Presentations were provided by representatives of the National Energy and Aging Consortium, the Edison Electric Institute, the American Association of Retired Persons (AARP), and the Office of Job Training at the U.S. Department of Labor.

National Energy and Aging Consortium.—This presentation included a description of the history and structure of the consortium and a discussion of its purpose and activities.

The Consortium now has 13 State affiliates and members were encouraged to establish new organizations in States where none was in place.

Edison Electric Institute.—This presentation included a discussion of the elderly customer awareness training program at the Institute to help utility company employees better understand the unique needs and values of their elderly customers, improve communication skills, and to inform employees of community resources available to the elderly.

American Association of Retired Persons.—This presentation included a description of the New Roles in Society program, "Life Work: Options for Older Workers in the Future" project.

Office of Job Training Programs.—This presentation outlined the current status of the Jobs Training Partnership Act (JTPA) and recent legislative proposals, particularly those which would effect the 3 percent set-aside program for older workers.

At their November Quarterly Meeting, the Council heard a presentation by the Women's Bureau of the U.S. Department of Labor concerning the problems facing older working women. Their program included a discription of their data bank on child care programs (CHOICES) which has recently been implemented, and a discussion of the elder care component which is being developed and should be on line by spring 1990.

E. Statement of Commendation and Tribute to the Honorable Claude Pepper

The Council issued a statement in honor of the late U.S. Congressman Claude Pepper. The statements was prepared and sent to his family and his office. The following is the text of that statement:

A TRIBUTE TO CONGRESSMAN CLAUDE PEPPER

The recent death of Florida Congressman Claude Pepper ended a public career whose greatness is reflected in both its breadth of accomplishment and its lasting influence on our culture at large.

Claude Pepper, as much as any public figure of his generation, changed the way Americans view the inevitable process of aging. Due largely to Pepper's support for Social Security and public health insurance, and his opposition to forced retirement, old age is no longer considered a period of inevitable poverty and decline.

As our fear of aging has decreased, we have seen a virtual renaissance in its possibilities. Our society is appreciably less obsessed with youth as the ideal which defines our public policy, commerce, and esthetic values. It is no longer acceptable to stigmatize the elderly as, in Pepper's memorable words, "toothless, sexless, humorless, [and] witless".

Despite his vast influence, Congressman Pepper would never have sought full credit for these changes. And in fact, this quintessential Southern gentleman was as much as symbol as an agent of our nation's cultural and demographic transformation.

As Pepper himself proved by his continued political skill and vitality well into his eighties, the later years can truly represent a flowering of the full potential for leadership. Pepper, often characterized as a "champion of the elderly" was in fact a friend of all who were vulnerable to abuse or neglect. He was a champion of *humanity*.

The steadfastness of Pepper's humane generosity earned him the goodwill, recognition and respect of not only his constituents but virtually all Americans, whether or not they agreed with him on specific issues.

Claude Pepper's passion for justice, his faith in the democratic process, his moral consistency, and his salty good humor will be missed by all of us—those of us who knew him well and those who did not. He is truly irreplaceable.

We the members of the Federal Council on the Aging therefore add our voices to the many already raised in tribute to Congressman Claude Pepper, a good friend, a respected colleague, and a standard of excellence for all in public service.

Other issues and activities in which the Council will be involved in 1990 include the following:

A. Aging America: Trends and Projections

The FCoA will participate for the third time in the development, printing, and distribution of the demographic report—*Aging America: Trends and Projections, 1989-90.* The publication is a cooperative effort with the Administration on Aging, the Senate Special Committee on Aging, and the American Association of Retired Persons (AARP).

B. Preparations for a 1991 White House Conference on Aging

In accordance with provisions of the Older Americans Act which states: "The Secretary shall establish an advisory committee to the Conference which shall include representation from the Federal Council on the Aging and other public agencies and private nonprofit organizations as appropriate", the Council will participate fully in the planning and preparation for a 1991 White House Conference on Aging should such conference be called by the President.

C. Public Education

To aid in the provision of the informational and educational needs of older Americans, a clearer and more realistic perception of elderly is emphasized. A key concern of the Council is the continued broad distribution of current and meaningful demographics, most especially with regard to the 1990 census.

D. Silver Anniversary of the Older Americans Act

The Federal Council on the Aging will be conducting and participating in activities commemorating the 25th Anniversary of the signing of the Older Americans Act of 1965.

III. FUTURE DEVELOPMENTS

In 1990, the Federal Council on the Aging will approach its work through the four standing committees described below.

A. Targeting and Access to Services

This committee will continue its work in studying intra-State funding formulas and their effectiveness in the distribution of Federal funds as prescribed by the Older Americans Act. The committee will also examine other issues involving access to services for the elderly, and will investigate methods to overcome obstacles which are encountered by older persons seeking these services.

B. Quality of Life and Housing

This committee will continue to examine and recommend ways to improve housing conditions for older persons. Among the topics that the committee may study are issues involving congregate and shared housing, reverse mortgages, board and care facilities, and homelessness among the elderly.

C. Health

This committee will continue its efforts calling for the Congress and the life insurance industry to work together in drafting long-term care legislation that will allow a realistically larger role for the insurance industry in the funding of long-term care needs of an aging population while reducing the projected staggering costs to the Federal Government.

Among other issues which may be addressed are the crisis facing rural hospitals, prescription drug abuse, and eldercare. The committee will also closely monitor the continuing debate over catastrophic health care coverage.

D. Ethics and Legal Issues

Throughout 1990, this new committee of the Council will examine and evaluate progress in areas of ethical and legal concern to older persons. Among the issue areas which may be explored are those involving guardianship, power of attorney, wills, living wills and living trusts, elder abuse, private/public sector relationships, and financial and retirement planning.

APPENDIX 2

REPORTS FROM FEDERAL DEPARTMENTS AND AGENCIES

ITEM 1. DEPARTMENT OF AGRICULTURE

JANUARY 25, 1990.

DEAR MR. CHAIRMAN: Thank you for your letter requesting an update of the annual report, Developments in Aging.

We have enclosed the most recent data concerning United States Department of Agriculture (USDA) programs which assist older Americans. These enclosures are comprised of contributions from five USDA agencies: the Agricultural Research Service, the Extension Service, the Economic Research Service, the Forest Service, and the Food and Nutrition Service.

Sincerely,

JACK C. PARNELL,
Deputy Secretary.

Enclosures.

AGRICULTURAL RESEARCH SERVICE

RESEARCH RELATED TO THE ELDERLY

Studies are conducted at the USDA Human Nutrition Research Center on Aging (HNRCA) at Tufts University, Boston, MA, which address the following problems of the aging:

1. What are nutrient requirements to insure optimal function and well-being for an aging population?
2. To what extent can proper nutrition prevent or slow the progressive loss of tissue function with aging?
3. What, if any, is the role of nutrition in the genesis of major degenerative conditions associated with the aging process?

In addition, studies are performed at the Beltsville Human Nutrition Research Center (BHNRC), the Grand Forks Human Nutrition Research Center (GFHNRC), and the Western Human Nutrition Research Center (WHNRC) on the role of nutrition in the maintenance of health and prevention of age-related conditions, including cancer, coronary heart disease, hypertension, and diabetes. A list of Agricultural Research Service projects related to nutrition and the elderly is attached.

Investigator	Institution	Title of Project	Project Period	Funding Level FY 1989
o Ernst Schaefer	HNRCA	Lipoproteins, Nutrition & Aging	10/01/84-09/30/89	$1,006,008

Abstract: Studies are directed to the effect of fatty acids and other dietary factors on lipid metabolism as related to aging. A specific Apo A-1 gene polymorphism has been found which correlates with genetic HDL cholesterol deficiency.

o Bess Dawson-Hughes	HNRCA	Role of Nutritional Factors in Preventing Age-Related Loss of Bone Density	10/01/84-09/30/89	$1,277,323

Abstract: A placebo-controlled, double-blind calcium supplement field trial is underway, in which 360 healthy postmenopausal women are being studied for 3 years to determine the level of dietary calcium required to minimize bone loss and maintain normal blood pressure over a long period.

o A. Taylor	HNRCA	Effects of Nutrition & Aging on Eye Lens Proteins & Protease	10/01/84-09/30/89	$ 778,815

Abstract: Antioxidants (vitamin C) have been found to reduce the oxidation of lens proteins in the eye associated with their aggregation and eventual precipitation from the lens in the form of eye lens cataracts. Moreover, guinea pigs fed high vitamin C containing diets had higher levels of vitamin C in their lens and were more resistant to photoirradiation damage.

o D. Rush	HNRCA	Nutrition Epidemiology & Aging	10/01/84-09/30/89	$1,090,753

Abstract: Epidemiological studies are designed to identify the determinants of nutritional status in the elderly and to relate nutritional status to health and well-being. A nutritional status survey involving 1,016 free living and institutionalized subjects revealed that nutritional supplements were being used by 45% of the males and 55% of the females. Considering nutrients from diet alone, more than 15% of the subjects between 60 and 98 years of age have intakes less than 2/3 the RDA for vitamins A, D, B-6, B-12, folacin, calcium, and zinc.

o	R. Russell J. Sadowski	HNRCA	Micro-Nutrient Requirements of the Elderly	12/01/84-11/30/89	$2,463,735

Abstract: Studies are being done on the dietary requirements of the elderly for folacin, vitamin-B-12, pyridoxine, vitamin D and K. Aging has been found to decrease the capacity of human skin to produce vitamin D-3 from its precursor, cholesterol.

o	W. Evans	HNRCA	Macro-Nutrient Requirements of the Elderly	12/01/84-11/30/89	$ 958,078

Abstract: Studies are being done on the amino acid (protein) and calcium requirements of the elderly.

o	I. Rosenberg	HNRCA	Bioavailability of Nutrients in the Elderly	06/01/85-09/30/89	$ 962,263

Abstract: Atrophic gastritis occurs in 20% or more of the elderly. This results in reduced absorption in the stomach, increase in pH of the upper small intestine and microbiological overgrowth. Folate and vitamin B-12 absorption in the stomach is reduced in the elderly with atrophic gastritis, especially when anti-microbial agents are administered.

o	W. Evans	HNRCA	Relationship Between Aging, Functional Capacity, Body Composition and Nutrient Needs	10/01/84-09/30/89	$2,049,825

Abstract: The broad objectives are to explore interactions among nutrition, exercise and aging and to try to understand how regular exercise activity affects energy expenditure, functional capacity and nutritional requirements in the elderly.

o	B. Gilchrest	HNRCA	Nutrition and Aging in Skin Derived Cells	10/01/84-09/30/89	$ 660,530

Abstract: This involves the in vitro study of the effect of calcium, strontium, vitamins A, D, and carotenoids on growth of keratinocytes and fibroblasts and on the differentiation of keratinocytes. It has been found that calcium stimulates growth of fibroblasts and this effect is age dependent. Myo-inositol has been found to stimulate growth of keratinocytes. Beta carotene has been found to protect keratinocytes against damage from ultraviolet irridation.

o	J. Blumberg	HNRCA	Role of Nutrition and Free Radical Reactions in Age and Drug-Associated Changes	10/01/84-09/30/89	$ 514,262

Abstract: The research goals of this project are to understand the role of nutrients and xenobiotics on free radical formation, metabolism and membrane peroxidation as related to aging.

o	J. Blumberg	HNRCA	Nutrition, Aging, and Immune Response	10/01/86-09/30/89	$ 462,686

Abstract: This project focuses on the effects of specific nutrients (vitamin A, C, E, selenium, iron and dietary fat) on immune response in animals and man. Preliminary data show that pharmacologic doses of vitamin E in the diet of aged mice enhance skin reactivity to various antigens.

o	P. P. Nair	BHNRC	Dietary Fat & Steroid Metabolism in Relation to Cancer Risk in Healthy Adults	09/30/84-09/30/89	$ 487,822
o	P. P. Nair	BHNRC	Relation Between Nutrition, Aging & Mutagenicity	09/26/85-09/09/90	0

Abstract: This involves research on dietary lipids and their influence on human health, especially as related to the prevention of cancer, and the role of nutrition in delaying the process of aging with special reference to the susceptibility of carcinogenesis. Also, the relationship of dietary fat and other nutrients to age-related disorders as reflected by changes in sterol and bile acid metabolism, fecal mutagenesis and glutathione sulfatransferase.

o	O. A. Levander	BHNRC	Human Requirements for Selenium and Vitamin E	05/08/87-05/07/92	$ 245,892

Abstract: This includes studies on the functions and biomedical mode of action of selenium and vitamin E and their interrelationships. Studies on bioavailability of food sources, physiological needs under varying conditions, and methods of assessing nutritional status are involved.

o	S. J. Bhathena	BHNRC	Dietary Carbohydrate and the Regulation of Endocrine and Neuroendocrine Control of Metabolism	08/19/88-08/18/93	$ 224,856

Abstract: Studies on the effects of dietary carbohydrates on tissue receptors of hormones such as insulin are performed in experimental animals and humans. The role of opiates as related to appetite in obesity will be investigated.

o	K. M. Behall	BHNRC	Effect of Refined Carbohydrates or Fibers on Metabolic Responses and Nutrient Utilization	04/30/85-04/30/90	$ 137,933

Abstract: Studies are done on the effects of chemically-defined dietary fiber on metabolic and physiological processes associated with heart disease, diabetes, bowl function and mineral balance in humans. These studies include interactions between oral contraceptives and dietary carbohydrates.

o	S. Reiser	BHNRC	Effect of Dietary Fructose on Lipogenesis, Glucosetolerance & the Bioavailability of Trace Minerals	10/01/85-09/30/90	$ 385,207

Abstract: This involves studies of the effects of different dietary carbohydrates on metabolic risk factors associated with diseases, including diabetes and coronary heart disease, in experimental animals and humans. This includes metabolic characterization of carbohydrate sensitive persons and interactions between carbohydrates and other nutrients.

o	O. E. Michaelis	BHNRC	Carbohydrate & Age Effects on Glucose Tolerance & Lipogenesis in Carbohydrate-Sensitive Models	04/01/86-03/31/91	$ 133,000

Abstract: The effects of feeding various carbohydrates to experimental animals with specific genetic predisposition toward obesity, hypertension, glucose intolerance and how genetics interacts to produce metabolic defects are under study.

o	D. L. Trout	BHNRC	Effects of Diet & Eating Patterns on Gastric Emptying, Rate-Controlling Step for Absorption	04/01/86-09/31/89	$ 146,156

Abstract: Studies are directed to determine the gastrointestinal responses to dietary carbohydrates, including the effects of carbohydrates on gastric emptying, digestion, absorption, and secretion of gastrointestinal hormones.

o R. A. Anderson BHNRC Bioavailability & Function of Chromium 02/15/85-02/15/90 $ 250,062

Abstract: Research is conducted on the effects of marginal or deficient intakes of chromium on carbohydrate metabolism and human performance. Adequate chromium intake is associated with a decrease in diabetes and cardiovascular disease.

o L. M. Klevay GFHNRC Cardiovascular Growth, Metabolism & Function: Effects of Copper, Trace Elements & Modifying Factors 03/03/86-03/02/91 $ 595,499

Abstract: This study is on the effects of copper deprivation on metabolic pathways and the cardiovascular system. Copper deficiency produces coronary heart disease in rats.

o T. R. Kramer GFHNRC Importance of Nutrition in Host-Defense System for Disease Resistance 03/01/86-02/29/91 $ 130,000

Abstract: The objectives of this project are to establish the effect of copper, iron, and zinc and their interaction on macrophage function morphology, the source of supressor macrophages, and degrees and mechanisms of supressor activity by macrophages on T-lymphocytes proliferation.

o J. Iacono WHNRC Requirements for Dietary Fats in Humans 03/01/85-02/28/90 $ 774,060

Abstract: The objectives of this project are to investigate the requirements for dietary lipids in humans and their effects on blood lipids, blood pressure, blood clotting and the maintenance of normal physiological processes.

o H. Munro HNRCA Impact of Nutrition on Cell Programming and Regulation During Aging 10/01/84-09/30/89 $ 359,604

Abstract: The nutrition and cell programming laboratory is assessing the adequacy of protein intake, and examining the impact of aging on the capacity of an iron-phosphorus complex, intercellular ferritin, to protect aging cells and tissues against iron toxicity.

o	I. Rosenberg	HNRCA	Genetic Variation in Nutrient Utilization and Metabolism as Related to Requirements of the Elderly	02/05/88-02/28/90	$ 347,040

Abstract: Dietary factors which relate to gene function will be studied. A workshop is planned.

o	R. Prior	HNRCA	Assessment of Nutritional Status and Requirements for Amino Acids and Protein in the Elderly	02/05/88-06/06/91	$ 306,149

Abstract: Studies are underway to determine the variation in amino acid levels in the blood of elderly persons and to determine the dietary need for those amino acids which may be limiting in protein synthesis. Special attention is being given to arginine and control of ammonia levels in the gut.

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HIGHLIGHTS OF RESEARCH FINDINGS RELATED TO NUTRITION AND PREVENTION OF DISORDERS ASSOCIATED WITH AGING

NUTRITION STATUS AND CATARACT FORMATION

Previous animal studies have suggested an association between nutritional status and cataract formation in the lens of the eye. The formation of cataracts can lead to blindness in the affected eye. Therefore, the relationship between nutritional status and cataract formation was examined. Those nutrients believed to influence the lens' ability to protect itself from the damaging effects of oxygen were studied. The subjects in this study were between 10 and 70 years of age. Seventy-seven subjects had a cataract in at least one lens. Blood levels were determined for many vitamins and minerals. The results suggested that the risk of cataract was reduced for subjects with the highest blood levels for vitamin D and carotenoids. Persons with cataracts were found to have lower values for vitamin C and higher values for vitamin B-6 and the mineral selenium. The results obtained are consistent with the idea that cataract formation may be delayed by nutrients that inhibit oxygen and accelerated by those nutrients that influence the activation of oxygen.

VITAMIN C STATUS AND NUTRIENT INTERACTIONS IN HEALTHY ELDERLY

As part of its mission to study the relationship between nutrition and aging, the USDA Human Nutrition Research Center on Aging at Tufts University carried out a survey of the nutritional status of healthy elderly in the Boston area. One purpose of the survey was to describe age- and sex-specific nutrient intakes, biochemical and anthropometric measures in free-living and institutionalized healthy elderly. Approximately 1,000 volunteer subjects were studied. This report focuses on the vitamin C status of the 677 free-living subjects for whom vitamin C intake and blood vitamin C data were available. Six percent of the males and 3 percent of the females showed marginal vitamin C status. Average plasma vitamin C levels were higher in the females compared to the males at all levels of vitamin C intake. Vitamin C supplement use was associated with higher blood levels for other vitamins including vitamins B-6, B-12, E, and folate for both sexes. Females also showed increased levels of vitamin A with increased intake of vitamin C. From the results of this survey, increased levels of vitamin C in elderly females appear to be associated with improved status of vitamin E and folate.

EXERCISE AND AGING

Increased physical activity in the elderly has been shown to increase life expectancy even into advanced old age. Normal age-related changes in body composition, including increased fat mass and decreased muscle and bone mass, may be due in part to decreasing physical activity. There is evidence that fat mass in physically active adults shows no increase with age *per se* but rather is indirectly related to amount of exercise. Changes in body composition associated with age and/or inactivity are associated with decreased glucose tolerance and a greatly increased risk for developing mature-onset diabetes. Research showed that 12 weeks of strength training 3 days per week by adults 60-72 years resulted in a marked increase in extensor and flexor strength. This increase in muscle strength was associated with an 11.4 percent increase in the total muscle size of the thigh. A progressive resistance training program also was used to condition the knee extensor muscle of a group of 10 institutionalized elderly men and women (mean age, 90 ±3 years). Regular aerobic conditioning 4 days per week also causes significant improvement in VO_2 max in glucose-intolerant older subjects. Such training also improves glucose tolerance, insulin-stimulated glucose disposal rates, and muscle glycogen stores. These studies indicate that the capacity of skeletal muscle to adapt to an exercise intervention is preserved well into old age.

VITAMIN B-6-DEFICIENCY AFFECTS INSULIN AND GLUCOSE IN ELDERLY

The vitamin B-6 requirements of the elderly have been studies with four males and four females, 61 to 67 years old, who completed a 3-month study in a metabolic unit. The effects of B-6 nutriture on plasma glucose and serum insulin levels were studies, and glucose tolerance tests were conducted. The study protocol consisted of a 5-day baseline period, followed by 17 to 20 days of a B-6-deficiency period during which the subjects ingested a vitamin B-6-low diet. A person was considered B-6-deficient when the xanthurenic acid excreted in a 24-hour urine sample after a L-tryptophan load was 300 mg or more. Following the B-6-deficiency period, there were 3 stages of B-6-repletion, each lasting 21 days, during which periods the subjects ingested diets containing increasing amounts of vitamin B-6. Serum insulin levels was elevated during B-6-deficiency, and the increase was much greater in males than in females. Among males, but not females, an increase in plasma glucose also was observed during B-6-deficiency. The results of this study will help establish requirements for vitamin B-6 in the elderly.

SEASONAL VARIATION IN VITAMIN D REQUIREMENTS OF AGING WOMEN

Currently there is no consensus on how to define the vitamin D requirement of the elderly. To develop a working definition of vitamin D adequacy, the relationship between vitamin D intake and serum concentrations of 25-hydroxyvitamin D (25(OH)D) and parathyroid hormone (PTH) was examined in 333 healthy postmenopausal women enrolled in a calcium supplement field trial. When serum 25 (OH)D concentration drops below 32 mg/ml, then a late winter increase in PTH concentration occurs. This seasonal increase in PTH has the potential to accelerate bone loss. The vitamin D intake required to maintain an adequate 25(OH)D level and prevent the wintertime increase in PTH was found to be 220 IU daily for healthy ambulatory postmenopausal women. Subjects with altered absorption or metabolism of vitamin D will require higher intake. To the extent that seasonal increases in PTH adversely affect bone health, as is commonly thought, the recommended dietary allowance for vitamin D of 200 IU daily is too low.

ASSESSMENT OF BODY COMPOSITION IN AGING INDIVIDUALS

An essential component in nutritional status assessment is the measurement of the body's fat-free mass (FFM) or lean body. One's ability, however, to accurately measure this compartment is limited in older individuals. Therefore, a study was undertaken to validate the total body electrical conductivity (TOBEC) technique for assessing FFM in middle-aged and elderly individuals. One hundred fourteen men and women between 35 and 90 years of age served as research volunteers. Each volunteer underwent body composition assessment using traditional methods as well as the TOBEC method. The findings of the project demonstrated a significant relationship between the TOBEC measures of conductivity and the other traditional methods of FFM assessment. It also was determined that the TOBEC method would be a better assessment of FFM in middle-aged and elderly prople because it is not affected by changes in bone mineral content.

VITAMIN E SUPPLEMENTATION AND IMMUNE RESPONSE IN ELDERLY

Supplementation of old mice with vitamin E and glutathione has been shown to improve immune responsiveness. Therefore, the effect of daily vitamin E supplementation (800 IU for 30 days) on immune responses of 32 healthy subjects (60+ years old) was examined in a double-blind trial in a Metabolic Research Unit. Delayed type hypersensitivity skin tests (DTH) mitogen-stimulated lymphocyte proliferation, as well as interleukin ^{2} (IL-2), prostaglandin E ^{2}, plasma lipid peroxides, and other nutritional biochemistry profiles, were evaluated before and after treatment. In the vitamin E-supplemented group: (1) The vitamin E content was higher (P 0.005) in plasma and white blood cells than in the placebo group; (2) the cumulative score and number of positive antigens in DTH response were elevated; (3) the mitogenic response to optimal doses of ConA were increased; (4) IL-2 formation in response to ConA increased and (5) PGE_2 and plasma lipid peroxides were decreased. The data suggest that vitamin E supplementation improves immune responsiveness in healthy elderly.

VITAMIN A AND VITAMIN E INTAKES IN ELDERLY

Many comprehensive studies of the elderly ahve indicated that vitamin A deficiency is uncommon. Blood values for vitamin A have been shown to be similar in persons of various ages. Other studies have indicated that vitamin A storage levels in the liver are normal throughout the aging process. Despite these reports, other studies have shown that the elderly were consuming less than two-thirds of the RDA for vitamin A. This observation implies that the RDA may be too high for selected elderly persons. Liver overload with vitamin A can result in liver damage. The elderly often supplement with megadoses of vitamin E that have been shown to increase vitamin A uptake and storage. Accordingly, a study was conducted to determine the relationships of supplemental and total vitamin A and vitamin E intake on vitamin A status. The main finding is that supplemental vitamin A is associated with greater levels of the ester form of vitamin A in blood and indicate that the elderly may be more sensitive to this form. Five of the elderly subjects with extremely elevated circulating retinyl ester form of vitamin A also had indications of liver disease. Thus, vitamin A supplementation appears to result in more of the ester forms of vitamin A in blood of the elderly, which, in turn, may be associated with liver damage.

REGULATION OF FERRITIN SYNTHESIS BY IRON

Iron is essential in the diet, but in excessive amounts can damage the cells of the body. To prevent this, excess iron is stored in cells within a protein ferritin, made up of two types of subunits. In order to ensure enough ferritin molecules when the cell contains excess iron, formation of new ferritin is regulated by the level of free iron in the cells. It is now shown that this response occurs at the level of the cell DNA (transcription) and also at the site of protein formation (translation). The latter mechanism is rapid and ensures a quick build-up of new ferritin molecules, while translation control allows flexibility of the relative amounts of the two different types of subunits making up the ferritin molecules. This latter control point can optimize the ferritin molecule shell to promote efficient iron storage.

EFFECT OF DIETARY CALORIE RESTRICTION

As we age, our immune system does not function as well as when we are young. This decrease in immune function contributes to increased incidence of infectious disease and cancer in the aged. One of the most effective days to delay onset of immunological changes associated with aging is dietary calorie restriction. The mechanisms of immunostimulatory effect of calorie restriction are not well understood. Calorie restriction has been found to reduce prostaglandin E2 (PGE2) formation, a substance which suppresses cell-mediated immune function. The reduction in PGE2 formation, by calorie restriction, may, therefore, be an underlying mechanism for the immunostimulatory effect of calorie reduction. Although calorie restriction is very effective in delaying age-associated changes in immune response in rodents, it's recommendation to elderly persons is not practical. However, by understanding the mechanisms of effectiveness of calorie restriction, other more practical dietary interventions can be designed. The importance of these findings is that PGE2 level can be changed by dietary factors such as fat and vitamin E.

ADEQUATE COPPER ESSENTIAL FOR DEVELOPMENT OF IMMUNE SYSTEM

Dietary deficiency of copper, an essential micronutrient, impairs the immune system of humans and other animals. The biochemical mechanisms responsible for suppressed immune system in copper deficiency are unknown. Accordingly, studies were performed to examine the effects of dietary copper deficiency on the characteristics of several major classes of immune cells in the blood of young rats. Blood was chosen for analysis because it may be readily obtained from humans and may be useful for monitoring their copper status. Relative percentages of T-lymphocytes, were significantly reduced, while the percentage of B cells and monocytes were elevated by Cu deficiency. In vitro responsiveness to optimal concentrations of antigens was decreased 2-3 fold by Cu deficiency. The results demonstrate that dietary Cu deficiency alters the relative numbers and function of T-cells in peripheral blood of young rats and suggest that these changes may enhance susceptibility to infection.

COPPER DEFICIENCY ALTERS RESPONSE OF PLATELETS

Daily diets in the United States often contain less copper than required to compensate for daily losses through excretion. It is important, therefore, to assess the possible health consequences of low dietary copper. Knowledge needed to make such an assessment can be obtained by delineating which physiological components are altered when dietary copper is restricted. The present report shows that copper deficiency in rats affects the interaction between cytoskeletal proteins and alters the physiological response of platelets to thrombin, a naturally occurring platelet activator. Specifically, copper deficiency enhanced myosin association with the cytoskeleton of thrombin-activated platelets. Furthermore, the rise in intracellular free calcium that normally occurs following thrombin activation was decreased 35 percent by copper deficiency. These findings indicate that functional properties of platelets, including secretions that depend on the interplay between cytoskeletal components following activation, are likely to be altered by copper deficiency. Since platelets play a major role in homeostasis and thrombosis, and are involved in inflammation, immune reactions and interactions with tumor cells, changes in platelet function associated with altered interaction between cytoskeletal components may contribute to the health effects of low copper status.

ENERGY INTAKE AND BODY COMPOSITION RESPONSES TO EXERCISE IN OVERWEIGHT WOMEN

Approximately one-third of American women are estimated to be overweight or obese. Several health risks are associated with obesity such as premature heart disease, high blood pressure, diabetes, and some forms of cancer. Overweight women will be at greater risk for these diseases once they have reached menopause. Thus, it's important to establish effective treatment programs for controlling weight prior to menopause. A study was conducted of 12 overweight women to determine the effect of daily exercise on food choices and nutrient intake. Body weight, lean body mass and body fat were measured throughout the study to determine if exercise affected body composition. Exercise did not affect, consistently, food choices or intake of calories, carbohydrate, protein or fat. Exercise did increase lean body mass. On the average, after 18 days of daily aerobic exercise, lean body mass increased approximately 1 kg (2.2 lbs.) with exercise of moderate duration and an additional 1 kg with exercise of long duration. Exercise did not affect body fat consistently. The lack of an exercise effect on food intake indicates that individual response to exercise is not predictable. Thus, a weight control program of exercise alone cannot guarantee reduced food and caloric intake or loss of weight or body fat.

DIETARY FATTY ACIDS AFFECT BLOOD PRESSURE IN ADULT MEN

Coronary artery disease (CAD) causes more than half a million yearly deaths in the U.S. at a cost of over $60 billion a year. The dietary link between diet and CAD is most evident in the fat component. The decreased incidence of the disease observed during the last 20 years has been in part attributed to changes in type and quantity of fat Americans consume. A study was conducted to elucidate the biochemical mechanism and possibly reveal the cause-effect relationship. A diet containing a relatively high quantity of polyunsaturated fatty acids of the omega type fed to 24 free-living male subjects was found to cause increased production of a biologically potent substance called prostaglandin (PG)E2. PGE2 influences myocardial and coronary circulation and contributes to regulation of blood pressure. These results suggest that some of the physiologic effects of certain diets are due to metabolic alternation of a group of hormone-like compounds called eicosanoids of which PGE2 is a member.

DIETARY POLYUNSATURATED FATTY ACIDS REDUCE BLOOD COAGULATION

Large intakes of saturated fatty acids are believed to increase the risk for heart attacks. This is caused by changes in blood platelets which make them clump more easily. Substituting polyunsaturated fatty acids for some saturated fatty acids in the diet should make platelet aggregation more difficult, and heart attacks more rare, by increasing the amount of aggregating agent needed to clump the platelets. In this study, minimum amounts of aggregating agents (ADP and collagen) needed to aggregate platelets were measured. Two groups of healthy men were fed diets which differed only in their amounts of polyunsaturated and monounsaturated fatty acids. Total fat and saturated fatty acid levels did not differ between diets. It was found that the aggregation thresholds for ADP and collagen increased on the high polyunsaturated fatty diet, meaning that increasing the relative amount of polyunsaturated fatty acids in the diet may decrease the risk for heart attacks. The effect of these fish oil fatty acids on blood platelet function was studied in rats by monitoring the responses of the cells in various types of agents that promote clot formation. Platelets from animals fed fish oil demonstrated decreased responsiveness to agents that stimulate signals by binding to receptors on the cell membrane. However, when an agent (fluoride) that bypasses the cellular membrane and stimulates platelets directly was used, no differences were observed in responses between platelets from the two groups. These results suggest that dietary marine oils act to dampen receptor-mediated signals by interfering with the flow of information from the membrane surface to the interior of the cell.

INFLUENCE OF DIETARY FIBER OF CHOLESTEROL

There is a need to identify dietary components in foods which are effective in lowering plasma cholesterol. The influence of combinations of oat and wheat bran on cholesterol and vitamins A and E were evaluated in cholesterol fed rats. When diets containing a mixture of oat and wheat fiber (2:1) were fed, significant reductions in liver cholesterol levels were observed. The availability of vitamins A and E was not affected by dietary fiber in cholesterol-fed rats. Oat fiber in combination with wheat fiber (2:1) provides sufficient oat fiber to effectively lower cholesterol. Oat fiber alone resulted in the greatest cholesterol reduction.

EFFECT OF AGE ON CALCIUM RETENTION IN BONE

Osteoporosis, or thinning of the bones, is a serious health problem in the United States which occurs especially in older women and may be affected by the amount of calcium eaten. In an effort to determine whether increasing the calcium in the diet would result in "stronger" bones, young and aged female rats were used. The young rats fed high calcium diets formed "stronger" bones compared to no effect for the old rats also fed the higher amount of calcium. These results suggest that to assure strong bones, young people should eat foods that will provide adequate calcium build-up in their bones. In contrast, in older females the use of dietary calcium supplement may not prevent bone loss.

EFFECT OF MENOPAUSE AND AGING ON SERUM CALCIUM AND PROTEIN

Varying effects of menopause and aging on serum total and ionized calcium concentrations have been reported. This has contributed to the difficulty in understanding the factors which regulate calcium and bone health in postmenopausal women. Accordingly, serum concentrations of total and ionized calcium, albumin, and globulins and serum pH were measured in 402 normal women, aged 18 to 72 years, who were being enrolled into field trials. Serum total calcium was found to increase after menopause and decrease with aging. In serum, part of the calcium is ionized and part is bound to albumin and globulins, with more binding at high pH. The increase at menopause was associated with increases in serum globulins and serum pH. The age-related decline in total calcium was associated with an age-related decline in serum albumin concentration. Serum ionized calcium concentration did not vary either with age or menopause. This study demonstrates the value of measuring ionized calcium in clinical studies of calcium and bone metabolism.

BORON DEPLETION CAUSES BONE MINERAL LOSS IN HUMANS

Osteoporosis is a disorder of older people which is characterized by the loss of bone calcium and increased chances of bone fractures. Osteoporosis affects about 15 to 20 million persons in the United States. About 1.3 million fractures caused by osteoporosis occur annually in people aged 45 years and older. A recent study has confirmed that the dietary lack of the mineral element, boron, contributed to the urinary loss of bone minerals and perhaps to the incidence of osteoporosis. Thus, a study was performed on 15 postmenopausal women and older men with the objective of determining if the lack of boron in the diet may cause changes indicating suboptimal calcium metabolism and bone loss. The blood levels of three hormones involved in calcium metabolism, 25-hydroxy vitamin D, calcitonin and osteocalcin, were changed by boron deprivation in a way similar to that observed in women who have postmenopausal osteoporosis. Boron apparently is needed for optimal calcium metabolism, and thus, is needed to prevent the excessive bone loss which often occurs in postmenopausal women and older men. Eating diets rich in fruits, vegetables, legumes, and nuts, which contain high amounts of boron, may help prevent osteoporosis.

FECAL MUTAGENICITY, RISK FACTOR FOR COLORECTAL CANCER

Cancer of the colon accounts for the second most common cause of cancer deaths in this country. To a large extent, diet and lifestyle have been implicated as contributory to this high mortality. In a search for indicators of risk, the ability of stool extracts to cause mutational changes in certain test bacteria has been measured. Fecal mutagenicity was measured in 68 patients with colorectal cancer and 114 controls. Samples also were tested for fecapentaenes by high performance liquid chromatography, to permit the separation of fecapentaene and non-fecapentaene mutagenicity. When samples containing high concentrations of fecapentaenes were excluded, the remaining TA98 mutagenicity was associated with a four-fold excess risk of colorectal cancer that achieved marginal statistical significance. It appears, therefore, that this test system has predictive value in risk assessment for colon cancer.

EXTENSION SERVICE, USDA AND STATE COOPERATIVE EXTENSION SERVICES

The Cooperative Extension System, a nonformal educational network, links research, science, and technology to the needs of the elderly and to the caregivers of the frail elderly. This network of Federal, State/Territories and local governments employs 15,000 professionals most of whom devote a portion of an FTE to work with volunteers and other agencies and organizations to enhance the quality of life for many older people.

CAREGIVING

Caregiving in America is going to be in state of crisis as the number of older people continues to increase and the number of women in the work force continues to increase. Therefore, the Extension System is addressing the caregiving issue. Below are some ways this is being accomplished.

Arkansas.—The Volunteer Information Provider Program (VIPP) is being conducted to reduce the economic impact of health care cost and to improve the quality of life for the elderly and their caregivers. Volunteers in communities are trained to provide information on caregiving skills and community resources to caregivers. Over the past 2 years, 2,327 caregivers were able to extend the time that they kept their frail elderly at home (and out of a nursing home) by 1 year. This resulted in a savings of about $11,000 to each family/society.

Montana.—Most aging programming that took place related to the issue of caregiving for dependent elderly. Pre- and post-tests on the myths and realities of aging consistently have indicated that substantial learning about the aging process does occur in the classes related to the understanding of aging. Parent caregiving (or caring for any elderly loved one) seems to be an issue whose time has come. Aging programs reached more than 11,000 persons by providing programs and information regarding nutrition and housing options for the elderly, in addition to the general aging and family life concerns.

New Hampshire.—The Volunteer Information Provider Project (VIPP), a 21-hour workshop series developed at the University of Missouri's Center for Aging Studies, was offered to 6 of the 10 New Hampshire Homemakers Advisory Councils. Forty-eight volunteers received information related to aging and shared this information with 184 adults who were caring for their elderly friends or relatives. Caregivers and volunteers reported that, as a result of VIPP, they had gained skills and knowledge about the aging process, communication techniques, stress management, personal care of the elderly person, consumer practices, and community resources for the elderly. Fifty caregivers reported a behavior change, stating that they were more effective in managing their stress and contacting community agencies for help in caregiving. Five counties offered a total of seven followup sessions to the VIPP. Seventy-two participants, attending these sessions, reported gaining knowledge about various topics including Medicare, Medicaid, housing options for the elderly, and Alzheimer's disease.

North Carolina.—Two hundred and forty-seven caregivers for the elderly participated in training sessions designed to increase their knowledge and skills in providing elderly care.

Oregon.—Educational programs were offered to adult children who are caregivers for dependent elderly parents.

Texas.—23 counties involved 848 family members, respite volunteers and nursing home staff in seminars designed to enhance physical care skills, knowledge about normal aging versus various diseases affecting older adults, constructive problem solving and copying skills, involving other family members, and awareness of community resources, Many agencies cooperated to bring this information to participants including the Texas Department on Aging, Area Agencies on Aging, Department of Human Services, Department of Health, Department of Mental Health and Mental Retardation, South Texas Geriatric Education Center in San Antonio, American Association of Retired Persons, Southwestern Bell, and local public libraries, hospitals, home health agencies, physicians, nurses and ministers. Evaluation results showed that an increase in coping and problem-solving skills and greater knowledge about aging enabled participants of the seminar series to manage their stress and improve their relations with their older family members.

DIET, NUTRITION AND HEALTH

The elderly as a group are highly vulnerable to misleading information about nutrition. Thus, as the elderly population increases, health and fitness will continue to be areas of primary concern to Cooperative Extension programming. More emphasis will be placed on specific nutritional requirements of the elderly.

Alabama 1989.—Two thousand and eighty-six adults, senior citizens, and youth participated in workshops on nutrition and health lifestyles based on currently recommended dietary guidelines. Followships surveys indicated that total of 924 individuals gained knowledge and adopted new diet practices as a result of attending these workshops.

Connecticut.—Extension home economists in Hartford and Middlesex counties developed a two-part series on "Using Medications Wisely" aimed at elderly consumers. A $200 grant from the State Department of Aging defrayed the cost of the visuals developed for the series. The cooperative effort of the Department of Aging in promoting programs and Cooperative Extension in implementing programs resulted in 25 programs being presented to 1,019 elderly consumers in Hartford and Middlesex counties.

Georgia 1989.—Educational Programs of the Fort Valley State College for senior citizens were:

—conducted five Wills and Estate Planning Workshops with 550 people participating;
—provided income tax assistance to to 40 senior citizens in two counties;
—maintained senior citizen ID card program reaching 750 senior citizens in 30 counties resulting in an average savings of $60 per month on prescription and nonprescription drugs;
—assisted low-income senior citizens in filling out 1040A income tax forms;
—sponsored five health fairs, one health conference, and reached 1,540 seniors; and
—conducted one seminar, Job Partnership Training Act (JPTA), to train 30 minority senior citizens.

Louisiana 1989.—Ten thousand elderly became aware of their nutritional needs at various stages of elderly life. A total of 9,672 elderly citizens improved their quality of life through consuming nutritious food. Approximately 10,820 elderly learned preventive measures for health problems related to diet. Specific behavioral practices improved were control of excessive food intake, and the traditional habit of consuming foods high in fat, sugar, and salt. They also began to consume new nutritious foods. Approximately 250 elderly and young family members, suffering from heart disease, improved their diets by consuming foods low in cholesterol, sugar and starches. More than 3,000 people having hypertension improved their diets and stress management practices through workshops, training, counseling, and method demonstrations.

North Carolina.—Major programming focused on diet and heart disease, weight control, and physical activity. Many walking exercise groups were formed.

South Dakota.—Twenty-five volunteer leaders presented a nutrition lesson to 320 elderly people. Sixty older people attended lessons on "Food, Medicine and You" that were taught in cooperation with doctors and pharmacists. One hundred and fifty seniors particpated in lessons on "Cooking for One or Two." Seniors reported changing eating habits by consuming more calcium, using more low-fat products, and eating a greater variety of foods. They also reported that they were exercising more. A program offered in four sites raised seniors awareness of medicare and supplemental health insurance.

Texas.—A Minority Peer Educator Project was partially funded with a grant from the Administration of Aging. Sixteen counties in Texas and one in Missouri have participated in the pilot project. Forty peer educators (20 Black and 20 Hispanic) have been teaching 800 nutrition site participants how to prevent or reduce hypertension and late, on-set diabetes. The methods used have been specially developed videotapes followed by discussions. Depression has been a topic of great interest that has been addressed. Based upon the pilot efforts, revisions are being made in the training curriculum for the peer educators. Early in 1990, the program will be disseminated across the State. Area Agencies on Aging and county Extension staffs are cooperators in this endeavor.

Washington.—Ninety-five people, 50 years of age or older, have been trained and are functioning as Master Volunteers. They teach food preservation, food preparation, and care-giving skills.

EMPLOYMENT AND RETIREMENT PLANNING

Maine.—The Senior Community Service Employment Project (SCSEP) counselors conducted on going job clubs for trainees 55 years and older. Sixteen percent of the SCSEP trainees graduated into unsubsidized employment. The Senior Companion Program (SCP) has included monthly training for volunteers. Training consisted of topics such as assertiveness; hospice; community resources; elderhostel; fuel assistance; and medicare. Volunteers then shared this information with their clients. SCSEP employability and support counselors will continue assisting income eligible persons, 55 and older, to obtaining training sites. Emphasis will continue in the job development aspect of the project. SCSEP volunteers will continue to provide resources for home-bound elders. Money saved by keeping older people independent in their own homes is over 360,000 dollars/year and 31 older workers graduated to unsubsidized employment.

North Carolina.—Two thousand nine hundred and two individuals acquired a combination of knowledge in retirement/estate planning. Results indicated that participants updated wills and changed banking and investment procedures.

LIVING ARRANGEMENTS AND HOUSING

Economic and social pressures continue to weigh heavily upon the elderly. The growing shortage of decent and affordable housing is forcing communities to utilize new housing arrangements.

Connecticut.—Container gardening was developed for the wheel chair senior citizens at Dinan Memorial Center. This served as a means of therapy for many elderly who had enjoyed gardening when they were younger. To avoid legal problems, all sites were tested for lead as well as elemental nutritent levels.

District of Columbia.—Urban vegetable gardening expansion and community improvement programs were conducted for senior citizens and the elderly who could not leave home to participate in general Extension programs. Specific accomplishments: A 24-hour per day, 7 days a week educational Tip-O-Phone service was established in FY 1988. It makes accessible 275 educational subjects to the elderly, poor, and other local citizens.

Iowa.—Legal, financial, leisure needs and changing life-styles of the later years were addressed through counseling, workshops, media releases, video, and bulletins. Seven hundred and fifty-eight family members attended workshops on evaluating their housing alternatives during retirement years. Two thousand three hundred and thirty family members analyzed nursing home insurance policies, compared benefits and considered purchases in light of personal goals. Preretirement programming assisted 563 persons in developing leisure and financial plans. A newsletter increased awareness on aging issues of 2,340 individuals, age 60 and over. One hundred and fifty-two persons were involved in two-generation farm family workshops on estate planning, work organization, communication, and financial planning. Three hundred and twelve family members with aging parents adopted supportive relationship patterns including: accurate methods for assessing and responding to needs of the elderly, local resource networking, and widening support of family members. Individuals facing loss and significant life changes developed resource management and human development skills to anticipate, prevent and/or resolve probelms associated with these changes. One hundred and sixty-four Volunteer Financial Counselors were trained to assist families experiencing difficulties.

Montana.—Housing represents the largest financial commitment for most people. The growing number of elderly remaining in their homes are finding it necessary to change their housing situation. Some move into substandard and unsafe housing. Montana Extension is attacking this problem by making in-home visits to needy seniors. As a result of these visits, weatherization improvements were applied to 232 senior homes; 1,325 Indian reservation homes got repairs; 642 seniors attended home modification and safe access programs; and 1,200 elderly homeowners received home improvement resources.

The Northeast Regional Center for Rural Development.—This Center has been sponsoring some work which explores retirement population growth as an alternate source of economic expansion for rural areas. This will provide information for the Revitalizing Rural America National Initiative on the issue of "Rural communities are dependent on too few sources of income." Transfer payment and pension incomes are steady sources of revenue. Early findings are that rural retirement counties in the Northeast have grown four times faster than other rural counties and they have higher per capita incomes. This could prove valuable to the future of rural America, since small communities need new sources of revenue and senior citizens are in need of safe, affordable living conditions. An earlier stud partially funded by the Northeast Center showed that help with various daily tasks of life, assurance of adequate housing and maintaining good health are typically viewed as three priority requirements in the maintenance of independent living.

Oklahoma.—The focus of the residential energy management program was to address the special energy-related needs of limited resource households, particularly those of the elderly. Primary emphasis was on training representatives of agencies and groups that ultimately reach elderly energy consumers. Major program activities included: a satellite conference on Elderly Heat Stress, and two videotapes and five workshops on heat and cold stress. A total of 580 professionals, paraprofessionals and volunteers were reached by the satellite conference and videotape dissemination workshops. Followup surveys indicate that each program participant after training reached an average of 30 elderly households or 17,400 individuals. Based on previous research, this results in approximately 4,000 households saving an average of $48 per year in household utility costs and over 15,000 increased household comfort.

Rhode Island.—Housing programs resulted in the improvement of housing for: 66 low-income families and elderly, 21 female heads of households, 2 deinstitutionalized women, and 154 homeless people.

INTERGENERATIONAL

Older retired persons and school age youth have a great deal to share with each other. They can work together on community projects, homework assignments, engage in dialogue, learn skills, and enjoy outings together.

Florida.—Accomplished women in sewing skills conducted a short-term project to work one-on-one with youths interested in learning to sew. Each youth received immediate help with this 4-H Clothing Construction Project.

New Jersey.—Adopt-a-Grandparent programs have been initiated in Warren, Mercer, and Middlesex Counties. 4-H youth visit nursing home residents on a year-round basis providing interactive programming with older adults. The New Jersey State Department of Aging has provided "hands-on" learning kits for 4-H to utilitize in conducting programs for older adults. These Bi-Folkal kits are available on a loan basis and have been utilized in several counties. Nursing home administrators have worked cooperatively with 4-H youth to provide ongoing programs in pet therapy and plant therapy in six counties. Rutgers 4-H college students have provided ongoing programs with over 200 elderly residents in the New Brunswick Nursing Home.

Texas.—In Gray, Frio, and DeWitt counties, over 350 youth increased their awareness of aging through Adopt a Grandparent letter writing programs.

STRENGTHENING INTERPERSONAL SKILLS

Alabama.—Eighty retirees participated in a 3-day camp titled "School Days for Retirees." Personal safety, consumer fraud, medicare, and catastrophic health, hearing loss, and area history were some of the topics covered by lectures and workshops. The camp is coordinated by the County Extension home economist and staff from the Area Agency on Aging. More and more older volunteers are serving on planning and implementing committees for the activity.

Puerto Rico.—Fifty community resource development committees were formed and 95 elderly citizens were active members of these advisory committees.

Texas.—Fifty-five programs reached 3,841 older adults with life stage management information including: retirement planning, housing choices and adaptation, driving, elder abuse, health and disease prevention and management, (1,703), and social improvement and self concept in the elderly. Two hundred and eighty-six older widows participated in five programs on "Your New Life Alone" which focused on grieving and developing positive coping skills. Twelve volunteers were trained to lead "Widow to Widow" groups. Ten county recognition programs during Older Texan Month were attended by 870 older adults. Twenty-five outstanding seniors were recognized. Fifteen interagency coalitions on aging involved over 375 individuals. Ten county programs targeted 583 older adults with information on increasing communication skills.

ECONOMIC RESEARCH SERVICE

ECONOMIC RESEARCH SERVICE CONTRIBUTION TO CONTROLLED CORRESPONDENCE REPLY TO SENATE SPECIAL COMMITTEE ON AGING

One of the research focuses of the Economic Research Service is rural development, and issues regarding older Americans are approached from that perspective. We actively participate in the Interagency Forum on Aging-Related Statistics at the National Institute of Health, to ensure that our research is backed by newly available data and results of other current research. From this participation, our staff became aware of the underutilization of health care services by the rural elderly and have begun research to determine the causes and consequences. The report is due to be completed in the coming fiscal year.

Our Senior Demographer served in a briefing capacity on issues concerning older Americans. He served on the advisory committee of the National Institute of Aging in response to Congressional inquiry into the need and feasibility of a Center for Studies of Older Rural Populations and prepared material for the committee's report on demographic aspects and trends of the older rural population. He also gave a talk in Anniston, Alabama on nonmetropolitan retirement to the Governor's Conference on Attracting Retirees to Alabama.

Several research reports have been completed this year by our staff (in some cases co-authoring with university researchers) on issues concerning older Americans:

Hoppe, Robert A., *The Elderly and Their Sources of Income: Implications for Rural Development*, forthcoming Rural Development Research Report.

Reeder, Richard J. and Nina L. Glasglow, "The Economic Development Consequences of Growing Elderly Populations in Nonmetro Counties," presented at the Southern Regional Science Association's annual meeting in Chapel Hill, NC, April 1989. Edited version forthcoming in *Rural Development Perspectives*.

Schneider, Mary Jo and Bernal L. Green, *Retirement Counties: A Development Option for the Nineties*, Arkansas Agricultural Experiment Station, Special Report 134, February 1989.

USDA, FOREST SERVICE

PROGRAMS SERVING THE ELDERLY

SENIOR COMMUNITY SERVICE EMPLOYMENT PROGRAM

The U.S. Department of Agriculture, Forest Service, in cooperation with the Department of Labor, sponsors the Senior Community Service Employment Program (SCSEP), which is authorized by Title V of the Older Americans Act, as amended. The SCSEP has three fundamental purposes: (1) Part-time income for disadvantaged persons aged 55 and over, (2) training and transition of participants to the private/public sector labor markets; and (3) community services to the general public. This program employs economically disadvantaged persons aged 55 and older in 38 States, the District of Columbia, and Puerto Rico. The SCSEP seeks to improve the welfare of underprivileged, low-income elderly, and to foster a renewed sense of self-worth and community involvement among the rural elderly.

Program participants are involved in projects on National Forest lands such as construction, rehabilitation, maintenance, and natural resource improvement work. Participants receive at least the minimum wage to supplement their personal incomes. A major benefit of the SCSEP program is the opportunity to have participants regain a sense of involvement with the mainstream of life through meaningful work. Additionally, valuable conservation projects are completed on National Forest lands.

The Service's Interagency Agreement for July 1, 1988 to June 30, 1989, provided $22.2 million which employed an estimated 6,148 seniors; 23 percent were minorities, and 38 percent were women. Nineteen percent of the participants were later placed in nonsubsidized jobs. The Government reaped a return of $1.56 for each dollar invested in this program.

VOLUNTEERS IN THE NATIONAL FORESTS

The Volunteer Program offers individuals from all walks of life the opportunity to donate their services to help manage the Nation's natural resources. This program continues to grow in popularity as people realize how they can personally help carry out natural resources programs. Volunteers assist in almost all Forest Service programs or activities except law enforcement and the collection of fees. They may choose to work in an office at a reception desk, operate a computer terminal, or conduct natural history walks and auto tours. Volunteers may also be involved in outdoor work such as building trails, maintaining campgrounds, and improving wildlife habitat.

During fiscal year 1989, 8,392 persons aged 55 and above volunteered their services in the National Forest.

FOOD AND NUTRITION SERVICE, USDA

NUTRITION PROGRAM FOR THE ELDERLY (NPE)

Through the Food Distribution Program (FDP), the U.S. Department of Agriculture (USDA) donates foods and cash in lieu of foods to help met the nutritional needs of the elderly. Specifically, FDP serves elderly Americans through NPE, which is administered by the U.S. Department of Health and Human Services (DHHS). NPE is authorized under Titles III and VI the Older Americans Act of

1965, as amended, to provide for social services and nutritious meals for elderly people. DHHS gives grants to State agencies on aging (SAA), which designate area agencies on aging (AAA) to plan and coordinate the nutrition program through providers of nutrition services at the local level under Title III. Title VI is administered by Indian Tribal organizations and provides services similar to those provided under Title III by SAAs.

SAAs request USDA donated foods, cash in lieu of foods, or a combination of both to use in providing meals to the elderly at various sites. The amount of food or cash that USDA gives each State is based on the number of meals served in the program and the level of assistance per meal authorized by legislation and appropriations. Initially, USDA support of the program was provided in donated foods. This assisted USDA in its price support and surplus removal activities as well as provided direct support for the meals served in the program. However, once legislation authorized cash in lieu of donated foods, the program increasingly became a cash transfer program. Presently, approximately 5 percent of USDA meal support is provided in donated foods.

Nutrition services are provided in schools, community centers, churches, public housing and other places located within walking distance of the homes of the majority of local elderly people. The AAAs provide nutritious, well-balanced meals at least once a day, 5 or more days a week. The AAAs will also provide transportation to and from the sites for those who need it, when possible. Similarly, the AAAs will provide home-delivered meals at least once a day, 5 or more days a week, when possible, to older people who are homebound.

Eligibility requires only that persons be 60 years of age or older to participate in the program. Their spouses, regardless of age, may participate. In addition, while each provider of nutrition service suggests appropriate contributions based on local economic conditions, each person decides what he or she can contribute toward the cost of the meal. The meals are free to eligible persons if they are not able to make a contribution.

Additionally, USDA offers food assistance to elderly people through the Food Distribution Program for Charitable Institutions (e.g., soup kitchens and nursing homes). The elderly may also receive available surplus foods through the Temporary Emergency Food Assistance Program (TEFAP). These two programs do not restrict any person from participating based upon age; economic need is the only requirement. Approximately 38 percent of TEFAP households are headed by persons age 60 or older.

Beginning in fiscal year 1990, the pilot project to allow AAAs to make their own cash/commodity elections independent of the State NPE elections became a permanent option. During fiscal year 1989, 103 AAA election sites participated in NPE; in fiscal year 1990, 109 AAA election sites are participating. The AAAs must elect at least 20 percent of their entitlement level in commodities to be eligible for participation. This permanent option will allow the AAA election sites to make use of USDA's buying power.

Based on the cash and/or commodity elections made for fiscal year 1990, it is estimated the USDA assistance will be provided as follows: (1) State Title III–95 percent cash, 5 percent commodities; (2) AAA election sites—76 percent cash, 24 percent commodities; and (3) Title VI—94 percent cash, 6 percent commodities.

During fiscal year 1989, preliminary information indicates that approximately 248 million meals were provided to the elderly under NPE. For fiscal year 1989, $141,293,000 was appropriated for NPE operations—$131,992,000 in cash assistance and $9,301,000 in commodity assistance. For fiscal year 1990, the appropriation is estimated to be $145,531,000 for NPE operations. Amendments to the Older Americans act set the per meal reimbursement rate for NPE at $.5676 through fiscal year 1991. The anticipated appropriation should be sufficient to enable USDA to reimburse the number of meals anticipated to be served during fiscal year 1990 at the legislated per meal level.

However, the appropriation is subject to sequester under the provisions of Public Law 99-177 and Public Law 100-119. If the appropriation were permanently reduced, then funds available would be lowered.

THE CHILD AND ADULT CARE FOOD PROGRAM (CACFP)

Since 1968, CACFP, formally the Child Care Food Program (CCFP), has provided cash reimbursement and donated foods to help provide nutritious meals to children enrolled in nonresidential child care centers. On November 29, 1987, Public Law 100-175 amended the National School Lunch Act to allow certain adult day care centers to be eligible for cash and commodity assistance under CACFP.

Eligible for participation are public or private nonprofit centers which provide nonresidential adult day care to persons 60 years of age or over. Also, private for-profit adult day care centers may participate as proprietary Title XIX or proprietary Title XX centers if not less than 25 percent of their enrolled eligible adults are Title XIX or Title XX beneficiaries. Eligible centers provide day care to frail and elderly adults for the purpose of avoiding premature institutionalization by allowing families a respite from caregiving. Not eligible are sheltered workshops, vocational or substance abuse rehabilitation centers, social centers or other types of centers whose primary purpose or service is other than to provide day care to frail and elderly adults.

THE COMMODITY SUPPLEMENTARY FOOD PROGRAM (CSFP)

The Commodity Supplemental Food Program is a grant program administered by FNS that provides commodity supplemental food packages to low income women, infants, children, and persons 60 years of age and over. In some States, applicants must be determined to be at nutritional risk in order to be eligible for program participation. The packages distributed under CSFP provide foods containing the nutrients lacking in the diets of the target population.

CSFP currently operates at 47 sites in 20 State agencies including the District of Columbia and one Indian Tribal Organization. The program is operated by State agencies, such as departments of health, social services, education, or agriculture. A local agency may be a public or private nonprofit agency that provides service to low-income persons. USDA donates commodity foods to the appropriate State agency for distribution and provides funds to State and local agencies to cover certain administrative costs. USDA pays for the initial processing and packaging of the food and for transporting it to the first point of destination in the State. In accordance with program regulations, local agencies determine the eligibility of applicants, distribute supplemental foods, and provide nutrition education. Local agencies are also encouraged to develop health care linkages and, at a minimum, are required to advise participants of the importance of health care and where they can obtain health services.

RESEARCH RELATED TO THE ELDERLY

The FNS Office of Analysis and Evaluation conducted an elderly feeding study in 1989 which is expected to be issued early in 1990. The major objectives of the study were to describe the nutritional needs of the low-income elderly, identify the types of elderly being served by these nutrition assistance programs and evaluate how well the needs of the elderly are being served by USDA food assistance programs.

In addition to interviewing by staff at the Federal, State, and local levels, the study included round-table discussions with 12 focus groups in three cities: Los Angeles, New Orleans, and Detroit. The focus groups were comprised of elderly participants in one or more of the Federal food assistance programs, and elderly persons not participating in any or all of these programs. The focus groups involved a total of 125 persons.

ELDERLY FOOD STAMP PROVISIONS

Under the Food Stamp Act, there are several special provisions for the elderly. Elderly is defined as anyone 60 years of age or older.

An elderly person who is unable to go to the food stamp office and be interviewed and who does not have someone who will do this for him/her may request that the office interview be waived. If the office interview is waived, the State agency will either conduct a telephone interview or make a home visit.

Households in which all members are receiving Supplemental Security Income are eligible without regard to the resource and income tests, social security number requirements and residency. Households may apply for food stamps at the Social Security Administration (SSA) office.

Persons applying for social security benefits must be informed at the office of the availability of food stamp benefits. Social Security applicants and recipients may get a food stamp application at the SSA office, but they must then take or mail the food stamp application to the food stamp office.

Most residents of institutions are ineligible. However, there are exceptions for residents of federally subsidized housing for the elderly, and disabled or blind individuals who are residents of certain group living arrangements who receive Social Security or Supplemental Security Income.

Normally all parents and children and siblings who live together are combined into one household even if they purchase and prepare meals separately. However, there are some exceptions. If the parent or sibling is elderly or disabled, he or she may be certified as a separate household if he or she purchases and prepares meals separately.

Normally people who live together and purchase and prepare meals together are combined into one household. However, if a person is elderly and unable to prepare meals he or she may be a separate household if the income of the others with whom he or she lives does not exceed 165 percent of the poverty line.

Elderly persons are exempt from the student disqualification criteria.

Elderly persons are exempt from the work requirements.

A household with at least one elderly person may have countable resources of up to $3,000. The limit for other households is $2,000.

Households that contain an elderly member do not have to meet the gross income test. They only have to meet the net income test which is defined as 100 percent of the Federal income poverty level.

Certain medical costs for elderly members are deducted in determining a household's net income upon which the allotment is based. The deduction is allowed to the extent that the costs exceed $35 per month per household. Only nonreimbursable costs for elderly or disabled members are deducted.

All households are entitled to a deduction for shelter costs that exceed 50 percent of income after all other deductions have been allowed. For most households there is a limit on the maximum amount of the shelter deduction. For households with an elderly or disabled member, there is no cap. All eligible one- and two-person households are entitled to a $10 minimum allotment except in the initial month.

Households with no earned income in which all members are elderly or disabled cannot be required to report household circumstances monthly, and they must be certified prospectively.

SSI households in California and Wisconsin are cashed-out. That is, they receive a cash supplement to their SSI benefits instead of food stamps.

There are seven other elderly cash-out demonstration projects in which eligible households receive cash instead of coupons.

Other demonstration projects are authorized in other areas. These could affect SSI housholds.

ITEM 2. DEPARTMENT OF COMMERCE

JANUARY 10, 1990.

DEAR MR. CHAIRMAN: Thank you for your letter regarding Department of Commerce programs pertaining to "older Americans."

We are enclosing our report for 1989. The report includes relevant programs that are of benefit to the older population and should be included in the Developments in Aging: Volume II.

If you need further information, please have a member of your staff call Ms. Cynthia Taeuber, Bureau of the Census, Population Division, on 763-7883.

Sincerely,

ROBERT A. MOSBACHER.

Enclosure.

BUREAU OF THE CENSUS

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OTHER REPORTS, PAPERS, DATA BASES, AND CONTINUING WORK

I. The Federal Interagency Forum on Aging-Related Statistics

The Census Bureau is one of the lead agencies in The Federal Interagency Forum on Aging-Related Statistics (The Forum), a first-of-its kind effort. The Forum encourages cooperation among Federal agencies in the development, collection, analysis, and dissemination of data pertaining to the older population. Through cooperation and coordinated approached, The Forum extends the use of limited resources among agencies through joint problem solving, indentification of data gaps and improvement of the statistical information bases on the older population that are used to set the priorities of the work of individual agencies. The participants are appointed by the directors of the agencies and have broad policymaking authority within the agency. Senior subject-matter specialists from the agencies are also involved in the activities of The Forum. The Forum was co-chaired in 1989 by C. Louis Kincannon, Deputy Director, Bureau of the Census, Manning Feinleib, Director, National Center for Health Statistics, and T. Franklin Williams, Director, National Institute on Aging.

At the initial meeting of The Forum, held October 24, 1986, it was agreed that The Forum would work on the following activities: (1) Identify data gaps, potential research topics, and inconsistencies among agencies in the collection and presentation of data related to the older population; (2) create opportunities for joint research and publications among agencies; (3) improve access to data on the older population; (4) identify statistical and methodological problems in the collection of data on the older population and investigate questions of data quality; and (5) work with other countries to promote consistency in definitions and presentation of data on the older population.

Three standing committees were established to carry out specific activities: (1) Data Needs and Analytic Issues, chaired by Joan Van Nostrand (National Center for Health Statistics): (2) Methodological Issues, chaired by Richard Suzman (National Institute on Aging); and (3) Data Presentation and Dissemination, chaired by Cynthia Taeuber (Bureau of the Census).

The work of The Forum facilitates the exchange of information about needs at the time new data are being developed or changes are being made in existing data systems. It also works to promote communication between data producers and policy makers.

As part of The Forum's work to improve access to data on the older population, the Census Bureau has published a *Forum Telephone Contact List* of major agencies and staff who work on specific aspects of aging-related statistics, the *Inventory of Data on the Oldest Old*, which is a reference document of Federal data bases on the oldest old population, and the *1988 Annual Report of the Forum*, which reviews the activities of The Forum and its member agencies during 1987 and 1988. Various sections of the annual report summarize Forum work and accomplishments, cooperative efforts of members, publications by member agencies, and activities planned for 1989.

II. Projects Between the Census Bureau and the Administration on Aging

A report titled "Guide to 1980 Census Data on Elderly," was published in 1986. This guide explains how to locate census data on the older population. The report reviews census products, services, and explains how to obtain them. The report has table outlines from the census publications and summary tape files to show the specific form of data available about the older population.

III. Projects Between the Census Bureau and the National Institute on Aging

A. The Census Bureau prepared special tabulations from the 1980 census for the National Institute on Aging. These tabulations include selected tables from Summary Tape File 5 retabulated with 5-year age groups from 60 years to 85 years and over. These tabulations also include other selected tabulations from the 1980 census. The University of Michigan archives these tabulations (Barbara Zimmerman, 313-763-5010).

B. Developed an international data base on the older population. The University of Michigan archives this data base (Barbara Zimmerman, 313-763-5010).

C. Established a joint Visiting Scholar Program to allow scholars to do research in residence at the Census Bureau.

D. Study of the quality of census data on the elderly includes an evaluation of coverage, age misreporting, estimates, and projections of centenarians, and so forth.

E. Preparation of a file from the Survey of Income and Program Participation (SIPP) on the health, wealth, and economic status of the older population. The SIPP file is completed and is archived at the University of Michigan (Barbara Zimmerman, 313-763-5010).

F. Programming is near completion for the annual report on the older population, *Aging America: 1988*, using Current Population Survey data. Data will be provided for persons aged 65-74, 75-84, and 85 and over. Most data will be cross-tabulated by sex, race and Hispanic origin. Some data will be produced in confidence intervals because of small sample sizes for the aged.

G. Provided The National Institute on Aging with special tabulations on poverty of rural elderly (from 1980 Census).

H. A paper titled "Minority Elderly: An Overview of Demographic Characteristics" was prepared by Cynthia M. Taeuber and Denise I. Smith of the Census Bureau. The paper focuses on increases in the minority elderly population, those 65 years and over and the differences among age, race, and ethnic groups within the older population. Some of the characteristics of the minority elderly population discussed are marital status, living arrangements, median income and poverty status. The paper also presents an overview of the planned 1990 census questions on race and ethnicity.

I. "A Demographic Portrait of America's Oldest Old" was prepared by Cynthia M. Taeuber, Bureau of the Census, and Ira Rosenwaike, Graduate School of Social Work, University of Pennsylvania, for a chapter in a book. This chapter looks at the rapid growth of the oldest old population, those 85 years and over and the reasons for that growth. This chapter also: (1) compares the oldest old's demographic, social, and economic characteristics with those of the younger old; (2) describes the characteristics of the centenarian population; (3) examines the quality of census data on the oldest old; and (4) discusses the implications of the growth and characteristics of this unique and important group.

J. Reprogrammed the regularly published tabulations of the Current Population Survey to include data for the population "65 to 74 years" and "75 years and over" in annual reports (see expecially P-20, Nos. 431, 433, 437, P-60, No. 166, the forthcoming report on educational attainment, and the forthcoming reports on money income and poverty).

IV. International Research on Aging

A. Studies from the International Data Base on Aging:

1. Published the first three of a series of 20 statistical briefs: "Aging Trends—Barbados," "Aging Trends—Kenya," and "Aging Trends—Thailand." All were prepared by Kevin Kinsella of the Census Bureau. These profiles include a contrast of current and future numbers and proportion of older populations and comparative data for other nations in the immediate geographical region.
2. A paper titled "Living Arrangements of the Elderly and Social Policy: A Cross-National Perspective" was prepared by Kevin Kinsella of the Census Bureau. The paper examines family and household structure, changes over time, and potential implications for social support and expenditures.
3. "A Comparative Study of the Economics of the Aged," presented at the Conference on Aged Populations and the Gray Revolution in Louvain, Belgium. Barbara Boyle Torrey and Kevin Kinsella of the Bureau of the Census and Timothy Smeeding of Vanderbilt University are the authors of this paper. The paper presents estimates of how social insurance programs for the aged have grown as a percentage of gross domestic product in several countries partly as a result of lowering retirement age and an increase in real benefits. It then discusses how the labor force participation of the aged in these countries has uniformly declined. Finally, it examines what contribution the Social Security benefit makes to the total income of the aged at present and how the average income of the aged compares to the average national income in each country.
4. "The Oldest Old—International Perspectives," submitted as a chapter in a future Oxford University Press publication. Barbara Boyle Torrey and Kevin Kinsella of the Bureau of the Census and George Myers of Duke University are the authors of this paper. The paper focuses on three topics related to the oldest old (80-plus) in eight countries. The topics discussed are demographic trends, marital status and living arrangements, and income. The paper shows cross-country comparisons and trend data on the above topics for the period 1985 to 2025.
5. *Aging in the Third World* has been published in International Population Reports, Series P-95, No. 79.
6. *An Aging World* has been published in International Population Reports, Series P-95, No. 78.

B. Completed a contract with Meyer Zitter, a consultant in Demographics, to work with other industrialized countries to produce internationally-comparable data on the older population from the 1990 round of censuses. A report titled "Comparative International Statistics available on the Older Population" was prepared by Meyer Zitter and will be available in 1990 after review by the countries. The report focuses on data available from the 1980 round of censuses and what subjects will be available from the 1990 round of censuses. The countries also sent 1980 census tabulations that are somewhat comparable. Ths report will make it possible to recommend tabluations for 1990 that countries may wish to produce to allow international comparability.

V. Other

A. Prepared text on the older population for inclusion in the Census Bureau's publication, *Population Profile of the United States: 1989*, Series P-23, No. 159.

B. Prepared paper on "Emerging Data Needs for the Elderly Population in the 21st Century" for public discussion of the Census of 2000.

C. Prepared a chapter on demographic trends for older population titled "Diversity: The Dramatic Reality" for inclusion in the book *Diversity in Aging: The Issues Facing the White House Conference in Aging and Beyond*, published by Scott-Foresman in 1989 (Cynthia M. Taeuber, Population Division).

D. Worked with the Department of Housing and Urban Development to produce tabulations from the Survey of Income and Program Participation for use in designing reverse annuity mortgage programs for low-income elderly homeowners.

E. A paper titled "How Are The Elderly Housed? New Data From the 1984 Survey of Income and Program Participation," was presented at the April 23, 1988 Annual Meeting of the Population Association of America in New Orleans, LA. The author of this paper is Arnold A. Goldstein, Population Division, Bureau of the Census. This paper serves the dual purpose of reporting on the housing characteristics of elderly households of various age groups, and of introducing the Health-Wealth file from the 1984 Survey of Income and Program Participation (SIPP). The paper described the prevalence of various housing types, household size, length of residence in the present housing unit, and the age of the structure itself. Level of comfort is measured in terms of extent of crowding, number of floors, type of heating fuel and presence of air conditioning, and availability of various appliances. Affordability, and important public policy consideration, is addressed separately for owners and renters. The paper also considers the extent to which low-income older households benefit from rent and mortgage interest subsidies, and whether many of these households are on a waiting list to gain access to public housing.

ITEM 3. DEPARTMENT OF DEFENSE

DECEMBER 22, 1989.

DEAR MR. CHAIRMAN: Your letter of October 11, asked for a report from the Department of Defense chronicling activities on behalf of older Americans.

It is hoped that the enclosed report will be of value in this important program area. Should further information be desired a point of contact on this staff is Larry Kirsch on 697-5421.

Sincerely,

FRANK P. CIPOLLA,
Acting Deputy Assistant Secreteary
(Civilian Personnel Policy).

Enclosure:

REPORT: DEVELOPMENTS IN AGING

This Department continues to operate a comprehensive retirement planning for Defense Federal Service employees. Integrated into the overall personnel management process, our program is designed primarily to assist employees in their adjustment to retirement and to assist management in planning for replacements to meet future work force needs. The program encourages extensive pre-retirement counseling for employees (and their spouses in many instances) on such subjects as financial planning, health needs, leisure time activities, living arrangements and personal guidance.

The Military Departments and the Defense Agencies, in cooperation with community health officials, continue to provide a number of occupational health programs and services to employees, and in some cases, to former employees who have retired. Many of these programs and services are designed to address problems generally associated with increasing age. Included are health guidance and counseling periodic testing for diseases and disorder, immunizations, and treatment.

Within the Department of Defense, we continue to eliminate discrimination based upon age. On a continuing basis we are examining personnel policies, practices, and procedures for possible conflict with equal employment opportunity intent, including discriminatory use of age.

In summary, this Department has operated a comprehensive retirement planning program for civilians, provided extensive health care services to employees and carried out a positive program to preclude discrimination based on age. These program efforts will be continued in 1990.

ITEM 4. DEPARTMENT OF EDUCATION

DECEMBER 29, 1989.

DEAR MR. CHAIRMAN: In accordance with your request, enclosed is the Department of Education's fiscal year 1989 report chronicling activities on behalf of older Americans.

I am pleased to transmit this summary to you for inclusion in the Committee's annual report entitled, Developments in Aging.

If the Office of Legislation can be of further assistance, please let me know.

Sincerely,

NANCY MOHR KENNEDY.

Enclosures.

ADULT EDUCATION

The U.S. Department of Education is authorized under the Adult Education Act, as revised by Public Law 100-297 to provide funds to the States and outlying areas for educational programs and support services benefiting all segments of the eligible adult population. The purpose of the Act, which was reauthorized in 1988 for 5 years, is to encourage the establishment of programs of adult education that will enable adults 16 years of age or older who are beyond the age of compulsory school attendance under State law:

(1) To acquire the basic skills necessary for literate functioning;

(2) To provide sufficient basic education to enable these adults to benefit from training and to obtain productive employment; and

(3) To enable adults who so desire to continue their education to at least secondary level completion.

Those adults who have completed the secondary level but are functioning at a lower level are eligible to participate in the program. Students seeking employability skills are also given the means to secure training that will help them to become more employable, productive, and responsible citizens. Federal funds support up to 90 percent of each State's program for the 1988 and 1989 grant years; 85 percent for 1990; 80 percent for 1991; and 75 percent of 1992 and thereafter. Federal funds also supply up to 100 percent of the program in outlying areas. At least 10 percent of each State's allotment must be used for special experimental demonstration projects and teacher training, and at least 10 percent of the States' allotment must be used for corrections education and education of other institutionalized adults. In addition to the basic State-administered program, the Act authorizes funds for workplace literacy and English literacy. The Act also authorizes various National programs including a program of adult literacy volunteer training.

In order to discuss the specifics of the efforts aimed at older adults, one must first be aware of the demographic changes which have a profound impact upon this group. According to the 1980 census, the median age of the population in that year was 30.1 years. By 1990, the median age is expected to rise to 33 years. This "graying" of the U.S. population will inevitably continue for several decades after 1990. By the year 2000, technology and the shift to the service sector will reduce the need for unskilled workers and increase the need for workers with higher skill levels. With the decline of the number of young workers, the average age of the workforce will rise significantly. Many of the emerging workforce participants, including a large number of older adults, lack the basic literacy skills necessary to meet the increased demands of rapid change and new technology. Thus, employers will have to make training and retraining a priority in order to upgrade the labor force.

The education of older persons has rarely ranked high as an educational priority in the United States, although the 1970's may well be considered the decade of growth in educational gerontology. Demographics have tended to make this development inevitable. Nearly half of the 15.6 million adults 70 years old and over, and about 36 percent of the 8.6 million adults age 65 to 69, have had 8 years of schooling or less (1980 census data). Such a high rate of under-education indicates a need for emphasizing effective basic and coping skills in programs for older adults.

The adult education program, which is administered by the Office of Vocational and Adult Education, is charged with addressing the needs of under-educated adults. In 1988 the total number of participants in the program was 3 million. The number of participants in the 45 to 59 year range was estimated to be 338,395 and that of the group 60 or older was 195,184. Currently, some 17.5 percent of persons in adult education programs are 45 years of age or older. According to 1982 census data, nearly one-third of all adult illiterates are aged 60 or over. In response to this data, the Department of Education's National Adult Literacy Initiative has focused attention on this serious problem.

The adult education program addresses the needs of older adults by emphasizing functional competency and grade level progression. States operate special projects to improve services for older persons through individualized instruction, use of media, home-based instruction, and through curricula focused on coping with daily problems in maintaining health, managing money, using community resources, understanding government and participating in civic activities.

Equally significant is the expanding delivery system, including radio, television, and courses by newspaper, as well as clearinghouses and satellite centers designed to overcome barriers to participation. Where needed, supportive services such as transportation and lunch are provided, as are outreach activities adapting programs to the life situations and experiences of older persons. Self-learning preferences are recognized and assisted by providing information, guidance and study materials. To reach more older persons, adult education programs operate in conjunction with senior citizens, nutrition programs, nursing homes, retirement and day care centers.

In conclusion, the Federal adult education program will continue to seek to meet the learning needs of older Americans. Increased cooperation among the organizations, institutions and community groups involved in this area at national, State, and local levels should lead to increased sharing of resources and improved services.

ENFORCEMENT OF THE AGE DISCRIMINATION ACT BY THE DEPARTMENT OF EDUCATION

The Department of Education's (ED) Office for Civil Rights (OCR) is responsible for enforcement of the Age Discrimination Act of 1975 (Act), as it relates to discrimination on the basis of age in federally funded education programs or activities. The Act contains certain exceptions which permit, under limited circumstances, continued use of age distinctions or factors other than age that may have a disproportionate effect on the basis of age.

The Department of Health and Human Services has published a general government-wide regulation. Each agency that provides Federal financial assistance must publish a final agency specific regulation. OCR is enforcing the Act under the general government-wide regulation until an ED specific regulation is published. An ED specific regulation for implementing the Act was submitted by OCR to other components in the Department for review and comment, and has been revised based on those comments. The redrafted regulation will be forwarded shortly to the Secretary of Education for submission to the Secretary of Health and Human Services and, subsequently, to the Office of Management and Budget. After their review and approval, the final ED specific regulation will be published in the *Federal Register.* The Act gives OCR the authority to investigate programs or activities receiving Federal financial assistance from ED. OCR does not have the authority to investigate employment complaints under the Act. Employment complaints either are sent to the Equal Employment Opportunity Commission (EEOC), which has jurisdiction under the Age Discrimination in Employment Act of 1967 (ADEA) for certain types of age discrimination cases, or are closed using the procedures described below.

Under the government-wide regulation, OCR forwards complaints alleging age discrimination to the Federal Mediation and Conciliation Service (FMCS) for resolution through mediation. FMCS has 60 days to mediate the age-only complaints or the age portion of multiple-base complaints. For complaints alleging discrimination on the basis of age and another jurisdiction (i.e., Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, and national origin; Title IX of the Education Amendments of 1972 which prohibits discrimination on the basis of sex; and/or Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of physical and mental handicap), the applicable OCR case processing time frames are tolled for 60 days (or until the complaint is returned from FMCS, whichever is earlier) to allow FMCS to process the age portion of the case. OCR notifies the complainant(s) of the duration of the tolling of the time frames.

If FMCS is successful in mediating a complaint filed solely on the basis of age within the 60 days allowed, OCR closes the case. If the case is not resolved, OCR investigates allegations in accordance with the applicable OCR case processing time frames. If the case was filed on the basis of age and another jurisdiction (e.g., Title VI), an attempt first is made by FMCS to mediate the age portion of the case, as described above. If FMCS is successful in mediating the age portion of the case within the 60 day time limit, OCR then processes the other allegations in the complaint within the applicable OCR case processing time frames. If FMCS is not successful in mediating an agreement between the complainant and the recipient on the age portion of the complaint, the case is returned to OCR, and OCR processes the complaint allegations in accordance with the applicable OCR case processing time frames.

Age complaints involving employment filed by persons over the age of 40 are referred to the appropriate EEOC regional office under the ADEA, and the OCR file is closed. EEOC does not have jurisdiction over age/employment complaints that involve persons under 40 years of age. If the complainant is under 40 years of age, and the complaint filed with OCR alleges only employment discrimination, the complainant is informed that there is no jurisdiction under the ADEA, and the case is administratively closed.

OCR received 113 age-only complaints in FY 1989, 51 of which were forwarded to FMCS for mediation. [Most of the complaints that OCR did not forward to FMCS were closed by OCR for lack of jurisdiction.] Two of the 51 cases were successfully mediated by FMCS. These two cases involved the issues of "financial assistance to students" and "course/degree offerings." Fifty age-only cases that were not mediated successfully by FMCS were returned to OCR in FY 1989 for processing, including 1 case referred in a previous fiscal year. Forty-six of these 50 cases were closed by OCR in FY 1989. Twenty-seven of the cases were closed after OCR's investigation found no violation of the age discrimination statute enforced by OCR; 13 were closed for lack of jurisdiction; 5 were closed with corrective action, or agreed-upon corrective action, by the recipient; and 1 case was withdrawn by the complainant without change. The majority of these closed cases involved the issue of "health benefits and services coverage." There were 4 age-only cases pending at FMCS at the end of FY 1989.

OCR closed 118 age-only complaints in FY 1989, some of which had been received in previous fiscal years. Seventy-one of the complaints were closed for lack of jurisdiction (including 49 that were referred to other agencies for processing). Six of the complaints were closed for other administrative reasons (including one that was referred to another agency for processing). Thirty-two of the cases were investigated by OCR and resulted in no violation findings. Nine complaints were resolved with corrective action on the part of the recipient including the 2 complaints, listed above, that were successfully mediated by FMCS. There were 8 age-only complaints pending in OCR at the end of the fiscal year (including cases not successfully mediated by FMCS and returned to OCR for processing).

In FY 1989, OCR received 110 multiple-bases age complaints. Of those, 35 were forwarded to FMCS for processing. [Most of the complaints that OCR did not forward to FMCS were closed by OCR for lack of jurisdiction or for other administrative reasons (e.g., the complaint was incomplete or untimely, or withdrawn by the complainant.)] One multiple-bases complaint was successfully mediated by FMCS. The issue cited in this case was "related aids and services/auxiliary aids for students with physical and mental impairments." A second complaint, forwarded to FMCS in FY 1988, also was successfully mediated by FMCS in FY 1989. The issue cited in this case was "application for admissions requirements/forms."

One hundred ninety-three multiple-bases age cases (the majority of which had been referred in a previous fiscal year) were not resolved successfully by FMCS and were returned to OCR for processing. One hundred and eighty-two of the 193 multiple-bases age cases were closed by OCR in FY 1989. One hundred and two of the cases were closed with corrective action, or agreed-upon corrective action, by the recipient; 37 were closed for lack of jurisdiction; 36 were closed after OCR's investigation found no violation of the civil rights statutes enforced by OCR, and 7 were closed for administrative reasons. The majority of these closed cases involved the issue of "health benefits and services coverage." There were 6 multiple-bases age complaints pending at FMCS at the end of FY 1989.

OCR closed 338 multiple-bases age complaints in FY 1989, some of which had been received in previous fiscal years. Seventy-two of the complaints were closed for lack of jurisdiction (including 19 that were referred to EEOC or other agencies for processing). Twenty-seven were closed for other administrative reasons; 60 were investigated and no violations were found; and 179 were closed with corrective action on the part of the recipient. Of the 179 closures resulting in change, the issues cited most frequently was "health benefits and services coverage" (168 cases). There were 41 multiple-bases age complaints pending in OCR at the end of the fiscal year (including cases not successfully mediated by FMCS and returned to OCR for processing).

The 223 cases with age as one or more bases of discrimination represented approximately 8 percent of the total complaints received by OCR during FY 1989. Eighty-six complaints were referred to FMCS for mediation, 3 of which were mediated successfully. An additional complaint, referred in a previous fiscal year, was also successfully mediated by FMCS in FY 1989. The number of age related complaints decreased from 400 in FY 1988 (56 age-only and 344 multiple-bases) to 223 (113 age-only and 110 multiple-bases) in FY 1989.

OCR confined its age discrimination compliance activities to complaint investigations; no compliance reviews on age discrimination issues were conducted in FY 1989.

OFFICE OF SPECIAL EDUCATION AND REHABILITATIVE SERVICES

REHABILITATION SERVICES ADMINISTRATION (RSA)

Basic Vocational Rehabilitation Programs

The State-Federal program of vocational rehabilitation is designed to provide a wide variety of services to adults with disabilities for the purpose of placing them into gainful employment. There are no upper or lower age limits for clients of State rehabilitation agencies. Although the mean age at referral of individuals vocationally rehabilitated in Fiscal Year 1986 (the latest year for which such data are available) was 32.6 years, 10.6 percent of these persons were 45 to 54 years old; 6.0 percent were 55 to 64 years old; and 2.5 percent were 65 years old and over. Nearly one rehabilitated person in five was 45 years of age or older when referred for rehabilitation services. The total number of individuals of all ages rehabilitated in Fiscal Year 1986 was 223,354. Age is not a barrier to eligibility for services for older persons with disabilities who wish to work. RSA submitted, and the topic was selected, a Fiscal Year 1990 Institute on Rehabilitation Issues (IRI) study on *Aging in America*. The IRI study results will be used for training vocational rehabilitation staff in this area.

Discretionary Programs

RSA also administers grants for a number of discretionary programs in which older Americans may be served, such as Special Demonstration Programs for Severely Disabled Individuals, Special Recreation Programs, Centers for Independent Living Projects, and Helen Keller National Center. These programs serve persons of any age, however the special projects authority is directed at vocational outcomes. Data on the actual number of older Americans served in these programs, however, are not available.

The Independent Living Services for Older Blind Individuals program is one RSA program that specifically focuses on older persons. Visual impairment is clearly associated with increasing age.

Final Regulations for Title VII, Part C Independent Living Services for Older Blind Individuals were published in the *Federal Register* on July 15, 1988.

The purpose of these projects is to provide or arrange for independent living rehabilitation services needed by older blind individuals in order for them to adjust to blindness by becoming more independent in caring for their individual needs. Such services will enable these persons to live more independently in their homes and communities with the maximum degree of self- direction.

The population to be assisted by projects under this program is defined by statute as individuals who are 55 years or older, whose severe visual impairment makes gainful employment extremely difficult to attain but for whom independent living goals are feasible. Independent living services are both feasible and appropriate for this population because these services can have a lasting and permanent impact on increasing personal independence as well as more active or continued participation in family and community life.

One successful outcome of this program would be to reduce the risk of premature or unnecessary institutionalization for participating individuals. In Fiscal Year 1989, this program funded the second year of 28 three-year projects, with an average grant award of $200,000. Total funding for this program in FY 1989 was $5.7 million.

The Helen Keller National Center for Deaf-Blind Youths and Adults hired a new staff member in 1989 to work exclusively on the problems of older persons with deaf-blindness. This staff member is working with State offices to facilitate the establishment of new service models aimed at community-based services for older persons who are deaf-blind.

The Projects With Industry (PWI) program also addresses the needs of older individuals with disabilities. The PWI program is designed to provide training and/or placement services for disabled individuals to assist them in obtaining gainful employment. The PWI program currently funds 114 grantees nationwide in its services delivery network. This effort spans a broad range of disability and age categories.

PWI has addressed the needs of a growing older disabled work population by awarding funds to the "Aging in America" (AIA) project in New York. In 1980, AIA conducted a national survey which found that approximately 60 percent of the disabled population in the United States is 45 years of age or older. Since 1983, AIA's placement programs have resulted in over 1,900 Statewide (New York) and national placements of disabled individuals aged 45 years and older. During the first months

of Fiscal Year 1989, AIA has placed more than 247 individuals with disabilities aged 45 and over into competitive employment. The average annual salary is over $14,000 per placement. AIA and most PWI programs are attempting to meet the increasing needs and numbers of disabled Americans 45 years of age and older.

NATIONAL INSTITUTE ON DISABILITY AND REHABILITATION RESEARCH (NIDRR)

The National Institute on Disability and Rehabilitation Research, authorized by Title II of the Rehabilitation Act, has specific responsibilities for the provision of a comprehensive and coordinated approach to the administration of research, demonstration projects and related activities for the rehabilitation of disabled persons, including programs designed to train persons who provide rehabilitation services and persons who conduct research. The Institute is also responsible for facilitating the distribution of information on developments in rehabilitation procedures, methods and devices to rehabilitation professionals and to disabled individuals to assist such individuals in living more independent lives. NIDRR-supported programs which impact on the aging population include:

Rehabilitation Research and Training Centers

These Centers serve as a national resource for the conduct of a full spectrum of rehabilitation research activities. Research is conducted in settings where patient/client services, research and training are viewed as interdependent activities essential to maximizing the rehabilitation of disabled individuals. The rationale for this operational approach is the belief that research cannot be isolated and still be effectively utilized.

Rehabilitation Research and Training Centers on Aging.—In response to an increased public concern about the lack of rehabilitation services for the older disabled population, NIDRR supports three Centers which focus solely on the rehabilitation of aging persons. Research is directed toward the identification of the rehabilitation needs of elderly persons and the development of appropriate rehabilitation techniques. These Centers and their activities are described below:

- —Rancho Los Amigos Rehabilitation Research and Training Center on Aging, Rancho Los Amigos Medical Center, University of Southern California, Downey, California. This Center is a collaborative effort between the Rancho Los Amigos Rehabilitation Hospital and the School of Medicine of the University of Southern California. Research is focused on medical, functional, psychological, social, policy and service delivery issues. The Center's training activities are designed to improve knowledge and skills regarding rehabilitation and the older person, and are targeted to students and practitioners in rehabilitation and other health-care disciplines.
- —Rehabilitation Research and Training Center on Aging, University of Pennsylvania, Philadelphia, Pennsylvania. This center is jointly supported by NIDRR and the National Institute on Aging. Research is addressing the rehabilitation needs of disabled persons who become elderly, with the purpose of restoring, preserving, or enhancing the older person's ability to function productively and independently. The Center's training activities include training for service delivery providers and academic training for the university community.
- —Rehabilitation Research and Training Center on Community Integration of Elderly Persons With Mental Retardation and Other Disabilities, University Affiliated Cincinnati Center for Developmental Disorders, and University of Akron, Ohio. In conjunction with the University Affiliated Programs (UAP) in Illinois, Indiana, Kentucky, Minnesota, and Wisconsin, this Center is focusing on improving the community integration of elderly persons with mental retardation and other developmental disabilities.

Rehabilitation Engineering Centers

Rehabilitation Engineering Centers conduct programs of advanced research of an engineering or technical nature which can be applied toward solving problems encountered in the rehabilitation of disabled persons. The Centers are also encouraged to develop systems for the exhange of technical and engineering information, and to improve the distribution of technological devices and equipment to disabled persons. Although there is no Center specifically devoted to the problems of elderly individuals, the technological advances resulting from Center research benefit this population. This technology includes research on improvements in wheelchairs for disabled persons; orthotics and prosthetics; improved mobility through the use of functional electrical stimulation to paralized muscles; and devices to aid hearing and visually-impaired individuals.

Research and Demonstration Projects

This is a program encompassing discrete research and demonstration projects primarily directed toward discovering new knowledge and overcoming significant information gaps in the rehabilitation of severely disabled persons. For example, NIDRR is supporting a project investigating the effects of electrical stimulation for management and prevention of ulcers in older persons with vascular insufficiencies.

Field-Initiated Research

The purpose of the Field-Initiated Research program is to encourage eligible applicants from the field of disability to originate valuable ideas that relate to the rehabilitation of disabled persons. These are discrete, specified projects in an area representing the interests of both the investigator and the Institute. Currently supported projects include:

—Family and Environment: The Effect of Low-Vision Rehabilitation of Older Persons;
—Assessing and Training on Visual Components of Reading in Individuals With Macular Loss;
—Orientation and Mobility for Blind Adults Over Sixty Years of Age; and
—Effects of Age and Visual Impairment on Independent Outdoor Activity.

OFFICE OF SPECIAL EDUCATION PROGRAMS

MEDIA SERVICES AND CAPTIONED FILMS PROGRAM

Program Purpose

Hearing impairments, like blindness, are closely associated with increasing age. The primary purpose of the Media Services and Captioned Films program, funded through OSERS' Office of Special Education Programs (OSEP), is to support and improve captioning to enable individuals with hearing impairments, many of whom are over age 65, to participate more fully in our national life. In practice this includes captioning and distribution activities to ensure that films, television programs, and other media materials become as available and useful to people with serious hearing impairments as to those without such disabilities.

Activities

In Fiscal Year 1989, this program provided: (1) on-going support for the evaluation, selection, captioning and distribution of captioned films for individuals who are deaf; (2) on-going support for increased access to the television medium through the closed-captioning of national and local news, movies, public information, sports, syndicated, and children's programs; (3) continued subsidization for the closed-captioned television decoders; and (4) on-going support to the National Theatre of the Deaf, Inc.

LIBRARY PROGRAMS

Discretionary Program

The Library Program office administers the Higher Education Act, Title II-B program under which they recently contracted for a study that compared library services to older adults in 1986 with such services identified in a 1971 study, also funded by the U.S. Department of Education. The *National Survey of Library Services to the Aging* by Dr. Betty Turock, of Rutgers University, found that there was limited progress in library services provided to the older adult, and what service there was had not kept pace with the growth in the over 65 population. The *National Survey* found that two-thirds of the public libraries gave such service a low priority and that less than seven percent of the nation's elderly were being reached by public library service.

State Administered Program

Library services to the elderly is one of the priorities of Title I of the Library Services and Construction Act (LSCA), a State-formula grant program administered by Library Programs in the U.S. Department of Education. Annual reports on projects conducted at local public libraries, funded in whole or in part with Federal funds under LSCA, are submitted by the State Library Administrative Agencies to the Library Programs office.

Statistics for projects completed in fiscal year 1988 (the latest year for which such data available), indicate that there was $1,653,771 of LSCA funds expended on library projects specifically aimed at serving the elderly. This amount was matched by $1,849,870 in State funds and $19,105,203 of local funds for a total of $22,608,844 expended on library services for the elderly under the LSCA program. These support levels have increased since 1982, when $44,720 was spent under the LSCA program for these services. Of that total, $41,619 were Federal LSCA dollars. The projects showed almost no local support. In 1988, local funds were unusually high due to a one-time, $19 million support effort in New Jersey. (See attached State-by-State totals of funding support for Fiscal Year 1988.)

In 1986, when the *National Survey* was conducted, the support levels had reached $1,466,056, with a Federal share of $1,221,719. The major difference in the data from the *National Survey*, and the 1988 data, was that the Federal funding was almost eight times the State investment in 1986. According to the State reports for 1988, for the first time, the State support exceeded the Federal as the States responded to the increase in the numbers of aging to be served, coupled with the recovery from the fiscal problems of the State budgets of the prior years, helped free funds for this service.

The funds were used to buy special materials, such as large-print books, audio cassettes, vision aids, and health related or other materials of "special interest" to the elderly. Special programs such as book talks, films, and genealogy were supported frequently, as were projects to combat illiteracy, and to deliver materials to senior citizen centers and homes. Also, finding increasing popularity is support for intergenerational library programs which frequently find both the young and the old serving each other.

POSTSECONDARY EDUCATION

The Office of Postsecondary Education administers programs designed to encourage participation in higher education by providing support services and financial assistance to students.

In fiscal year 1989, and estimated $18.3 billion was provided to students for financial aid. Data on the age of recipients of financial aid are not generally available. However, data for the Pell Grant program, the largest grant program, indicates that 6.1 percent of all recipients were over age 40.

The Special Programs for the Disadvantaged, commonly known as the "TRIO" programs, provide support services to those interested in pursuing a postsecondary education, enrolled in postsecondary education, or who wish to pursue a graduate or professional degree. Because age is not an eligibility criteria under most of these programs, data on the age of participants is not available.

In addition to these types of programs, the Office of Postsecondary Education has supported innovative approaches to meeting the needs of older Americans through the Fund for the Improvement of Postsecondary Education (FIPSE). In fiscal year 1989, FIPSE supported 4 projects dealing specifically with our aging population. These projects are:

Recruiting and Preparing Retired Professionals as Math and Science Teachers (National Executive Services Corps);
Coordinated Student Involvement in Elder Care (Foundation for Long Term Care);
Elderserve (Kansas State University); and
Community Service to the Poor and Elderly (St. Vincent Medical Center).

ITEM 5. DEPARTMENT OF ENERGY

December 13, 1989.

Dear Mr. Chairman: In response to your letter of October 11, 1989, requesting an update of the Department's current and upcoming activities of particular interest to older Americans, I am submitting the following enclosure that describes departmental activities in areas of energy efficiency programs, information collection and distribution, public participation, and research on the biological and physiological aging process.

I am pleased to contribute to your annual report of Federal activities and programs of interest and assistance to older Americans.

Sincerely,

James D. Watkins,
Admiral, U.S. Navy (Retired).

Enclosure.

INTRODUCTION

Only 15 years ago America—and all industrialized nations—were facing serious oil supply shortages, severe economic dislocation and strategic uncertainty. Rapidly rising energy prices had a negative impact on individual consumers, including millions of our senior citizens.

Today, oil prices are roughly half their 1980 levels. The U.S. Energy Information Administration now estimates a barrel of oil will cost $28 (in 1988 dollars) in the year 2000—in marked contrast to alarming predictions of $100 per barrel oil, offered by economists only a decade ago.

Much of the credit for this remarkable turnaround must be attributed to decontrol of the petroleum market. And just as surely, the success of energy conservation measures undertaken by American businesses and millions of individual consumers, has also played an important role.

The mission of the Department of Energy (DOE) is to design energy policies and programs in support of the President's broad objectives for America's future: sustained, non-inflationary economic growth; good stewardship of the environment; and long-term strategic security. The President has specifically directed DOE to develop a national energy strategy. To this end, the agency is working to establish a comprehensive, credible, data base upon which we can begin to form a national consensus on energy policy; and, through a series of public hearings in cities from coast-to-coast, DOE is soliciting the views and opinions of every segment of society, including senior citizens, regarding all aspects of energy supply and demand.

The following provides a survey of DOE programs and activities of particular interest to senior citizens.

ENERGY EFFICIENCY PROGRAMS

Weatherization Assistance Program.—The low-income elderly and the handicapped receive priority under this program which provides grants to States for the installation of insulation, weatherstripping, storm windows, heating and cooling system modifications, and other energy-saving measures.

In 1989, the Weatherization Assistance Program awarded $159,600,000 of Appropriated Funds in grants to the 50 States, the District of Columbia, and nine Native American tribal organizations for the weatherization of homes of low-income families. Reports submitted from the inception of the program through September 1989, indicate that about 1,921,756 homes were weatherized and that approximately 949,000 of those dwellings were occupied by the elderly. In FY 1989, an estimated 116,000 homes were weatherized, of which 33,990 were occupied by elderly citizens.

Institutional Conservation Program.—Title III of the National Energy Conservation Policy Act provided for a matching grant program to support, among other things, professional analyses of the energy conservation potential in public care facilities. The effort of this program is to identify for building operators ways to conserve energy and, thus, cut operating costs. The program also hopes to influence the capital investment decisions of an institution's management.

State Energy Conservation Program/Energy Extension Service.—The State Energy Conservation Program (SECP) was created to promote efficiency and reduce the growth rate of energy demand in participating States. Under this program, States voluntarily enter into a cooperative effort with the Federal Government, under which DOE provides technical and cost-shared financial assistance, and the States develop and implement comprehensive plans for specific energy goals. At present, all States, the District of Columbia, and U.S. territories participate in SECP.

The Energy Extension Service (EES) is a Federal/State partnership established by the National Energy Extension Service Act of 1977 to provide small-scale energy users with personalized information and technical assistance to facilitate energy conservation and the use of renewable resources. Started as a 2-year project in 10 States, the program was expanded nationwide by Congress after an evaluation demonstrated its effectiveness. All States, as well as U.S. territories and the District of Columbia, received cost-shared grants to help individuals, small businesses, and local governments take practical conservation steps.

Senior citizens are eligible for service provided through SECP and EES (directly or indirectly). In addition, many States have developed and implemented projects specifically for this propulation section. Examples include senior weatherization and training, hands-on energy conservation workshops, low-interest loan programs, senior energy savings months, and numerous seminars addressing the varied needs of senior citizens. These projects are often cosponsored with agencies whose primary focus is on senior citizens.

INFORMATION COLLECTION AND DISTRIBUTION

The Energy Information Administration collects and publishes comprehensive data on energy consumption in the residential sector through the Residential Energy Consumption Survey (RECS) and the Residential Transportation Energy Consumption Survey (RTECS). The RECS includes data collected from individual households throughout the country along with actual billing data from the households' fuel suppliers for a 12-month period. The data include information on energy consumption, expenditures for energy, cost by fuel type, and related housing unit characteristics (such as size, insulation, and major energy-consuming appliances). The RTECS collects data on characteristics of household vehicles and annual miles traveled. The RECS and the RTECS contain data pertaining to the elderly.

The results of these surveys are analyzed and published by the Energy Infomation Administration. The msot recent RECS was conducted for calendar year 1987. Results of this survey are reported in three RECS publications: *Housing Characteristics 1987* (published May 1989); *Household Energy Consumption and Expenditures 1987 Part 1: National Data* (Published October 1989); and *Household Energy Consumption and Expenditures 1987 Part 2: Regional Data* (projected publication: February 1990). The next RECS will be conducted in the fall of 1990.

Housing Characteristics 1987 provides data categorized by age of householder on energy-related characteristics of housing including the square footage of the housing unit and types of fuels used.

Household Energy Consumption and Expenditures 1987 Part 1: National Data provides estimates of consumption and expenditures of electricity, natural gas, fuel oil, kerosene and liquefied petroleum gas for the elderly which indicates that in 1987, the elderly used about 10 percent more energy to heat their homes than the nonelderly, even after adjusting for weather and size of housing unit. Overall energy expeditures were less for the elderly in all areas except space heating, where they spent 13 percent more for home heating. Approximately 61 percent of the elderly's total energy consumptionm was used for space heating and about 38 percent of their total energy expenditures were for heating.

The most recent RTECS was conducted in 1988. Results of this survey will be published in *Household Vehicles Energy Consumption 1988* (projected publication: January 1990). This publication will present data, categorized by age of householder, on vehicle characteristics, vehicle miles traveled, gallons of motor vehicle fuel consumed and expenditures for motor vehicle fuels. The next RTECS will be conducted in 1991.

The published reports can be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401 and from the National Energy Information Center, 1000 Independence Avenue, S.W., Washington, D.C. 20585.

PUBLIC PARTICIPATION ACTIVITIES

During FY 1989, the U.S. Department of Energy remained active with the National Energy and Aging Consortium (NEAC), a network of more than 50 organizations from the public and private sectors. This organization is the only one of its kind that brings federal agencies together with national aging organizations and the private sector to discuss and implement solutions to the energy-related needs of the elderly.

The Office of Consumer and Public Liaison has represented the Department in the Consortium by serving on the NEAC Steering Committee. Through participation in this group, DOE has exercised leadership in forming partnerships with a variety of organizations that have worked with elderly citizens to assist with their energy needs and concerns.

In September, Secretary Watkins announced that the Department of Energy would sponsor a series of events to celebrate October as Energy Awareness Month. Scores of organizations throughout the U.S. and the Pacific Territories, including senior citizen groups, participated in Energy Awareness Month events and activities. The National Energy and Aging Consortium held its quarterly meeting and luncheon in connection with Energy Awareness Month. A noted specialist in aging, Dr. Michael Creedon, spoke at the luncheon on the growing interest in the subject of "Eldercare."

Throughout the year, the Energy Department's staff has maintained open channels of communication with Federal agencies and departments for the purpose of improving information exchange about energy assistance programs. This information exchange gives particular emphasis to programs that allow for special attention to the elderly.

RESEARCH RELATED TO BIOLOGICAL AGING

In 1989, the Office of Health and Environmental Research (OHER) administered research to maximize the use of the Department of Energy's unique laboratory resources in basic biological research and to understand the health effects of radiation and energy-related chemicals. The Department continues to identify and characterize long-term, late-appearing effects induced by chronic exposure to low levels of physical agents. Health effects caused by chronic low-level exposure to energy-related toxic agents often develop over the entire lifespan. Consequently, such effects must be clearly distinguished from the normal aging processes. To make a valid distinction between induced effects and spontaneously occurring changes, information on changes occurring throughout the lifespan is collected for both experimental and control groups. These data help to characterize the normal aging processes as well as the toxicity of energy-related agents over time. As in the past, lifetime studies of humans and animals constitute the major effort in ongoing research related to biological aging. Research directly concerned with the aging process has been conducted at several of the Department's contractor facilities. Summarized below are specific research projects addressing aging that the Department sponsored in 1989.

Long-Term Studies of Human Populations

These studies provide valuable data on health effects and life shortening in human populations exposed to hazardous chemical and physical agents associated with energy technologies. Additional information on lifespan and aging in human populations is also collected. Since long-term studies of human populations are costly, time-consuming, and complex, they are initiated on a highly selective basis.

The Radiation Effects Research Foundation (RERF), sponsored jointly by the United States and Japan, continued work on a lifetime follow-up of survivors of atomic bombings that occurred in Hiroshima and Nagasaki in 1945. Over 100,000 persons are under observation in this study.

An important feature of this study is the acquisition of valuable quantitative data on dose-response relationships. Studies specifically concerned with age-related changes also are conducted. No evidence of radiation-induced premature aging has been obtained.

After being accidentally exposed in 1954 to radioactive fallout released during the atmospheric testing of a thermonuclear device, a group of some 200 inhabitants of the Marshall Islands has been followed clinically, along with unexposed controls, by medical specialists at the Brookhaven National Laboratory. Thyroid pathology, which has responded well to medical treatment, has been prevalent in individuals heavily exposed to radioiodine. This study is currently conducted under the auspices of the Department's Office of Defense Programs.

Nearly 2,000 persons exposed to radium, occupationally or for medical reasons, have been studied at the Center for Human Radiobiology, Argonne National Laboratory.

Other studies currently involving the Department include:

—A Los Alamos National Laboratory epidemiologic study of plutonium workers at three Department of Energy facilities. An estimated 15,000 to 20,000 workers will be followed in this retrospective mortality study.

—A study of some 600,000 contractor employees at Department of Energy facilities who are being analyzed in an epidemiologic study to assess health effects produced by long-term exposure to low-levels of ionizing radiation.

—The U.S. Uranium/Transuranium Registry, which is operated by the Hanford Environmental Health Foundation, is collecting occupational data (work, medical, and radiation exposure histories) as well as information on mortality in worker populations exposed to plutonium or other transuranium radioelements.

Lifetime Studies in Short-Lived Mammals

Although human studies are preferable in assessing health impacts associated with any hazardous agent, there inherent limitations necessitate acquiring quantitative data from controlled lifetime studies of animal populations. Small rodents with lifespans of 2 to 3 years provide data in a minimum of time and at low cost, and they have been extensively used in large-scale studies of the effects induced by low doses of ionizing radiation. Studies using rodents to study chronic effects of radiation are underway at the Brookhaven National Laboratory, the Lawrence Berkeley Laboratory, and the Oak Ridge National Laboratory.

Lifetime Studies with Long-Lived Mammals

From some points of view, long-lived mammals represent better human surrogates than do their short-lived counterparts. Thus, obtaining quantitative data on responses of long-lived species to hazardous agents is important—and studies are now being conduicted at the Argonne National Laboratory and the Lovelace Inhalation Toxicology Research Institute. This research increases our knowledge of lifespan, age-related changes, morbidity, mortality, and causes of death, as well as alterations in these characteristics that may be induced by radiation. Because of the cost and time involved, these lifetime studies were initiated on a highly selective basis.

Research Directly Concerned with Aging

Interest in biological aging has continued in several of the Department of Energy laboratories and has resulted in additional research at the molecular, cellular, and organismal levels of biological organization. Examples include: (a) Research at the Lovelace Inhalation Toxicology Research Institute on effects of age on lung function and structure of adult animals, and (b) the study and diagnosis via radiopharmaceuticals and new imaging devices of age-related dysfunctions of the brain and heart, including senile dementia, alzheimer's disease, stroke, and atherosclerosis.

Trends and Prospects

Given the need to assess long-term and late-appearing effects of hazardous agents associated with energy technologies, lifetime studies of animal and human populations will continue. There is a particular need for lifespan data on responses to individual chemical agents, to combinations of toxic chemicals, and to combinations of nuclear and non-nuclear chemicals as are found in hazardous waste. In future research, lifetime studies involving short-lived species will be emphasized. No new lifetime studies involving long-lived animals are planned. Efforts in research on molecular and cellular aspects of aging in mammals are expected to increase, as are studies to sequence the human genome. As a result, additional information on age-related changes in both animals and humans should be forthcoming.

ITEM 6. DEPARTMENT OF HEALTH AND HUMAN SERVICES

JANUARY 12, 1990.

DEAR MR. CHAIRMAN: On behalf of Secretary Sullivan, I am pleased to submit to you our portion of the Committee's annual report, "Developments in Aging."

The Department of Health and Human Services administers a wide range of programs aimed at assisting our Nation's elderly and I hope the enclosed information will be of help to your committee as it compiles this year's summary.

If you need further information, please don't hesitate to contact me or Sue Myers at 245-6786.

Sincerely,

GERALD OLSON,
Assistant Secretary for Legislation.

Enclosures.

HEALTH CARE FINANCING ADMINISTRATION

Long Term Care

The mission of the Health Care Financing Administration (HCFA) is to promote the timely delivery of appropriate, quality health care to its beneficiaries--approximately 47 million aged, disabled, and poor Americans.

Medicaid and Medicare are the principal sources of funding for long term care in the United States. The primary types of care reimbursed by these programs of HCFA are skilled nursing facilities (SNFs), intermediate care facilities (ICFs), and home health services.

HCFA's Office of Research and Demonstrations (ORD) conducts research studies of a broad variety of issues relating to long term services and their users, providers, costs, and quality. ORD also conducts demonstration projects that demonstrate and evaluate optional reimbursement, coverage, eligibility, and management alternatives to the present Medicaid and Medicare programs.

RESEARCH ACTIVITIES

Long term care research activities in ORD can be classified according to five objectives:

- examining and promoting alternatives to institutional long term care;
- assessing and evaluating long term care programs in term of costs, effectiveness, and quality;
- examining the effect of the hospital prospective payment system (PPS) on long term care providers;
- examining alternative payment systems for long term care; and
- supporting data development and analyses.

Prior research in long term care has highlighted the fact that disabled individuals prefer to remain in the community as long as possible and that they are able to do this, in large part, due to the care provided by informal caregivers, usually family. For a number of years, ORD has been funding research that has been examining the amount and types of services provided by family members. This research is continuing and includes examination of contributions from both public programs and private individuals (e.g., family members) for the support of the disabled in the community. Information is being sought about the resources needed to support the informal caregiver network in its efforts to avoid unnecessary institutionalization of relatives.

Because of the interest in promoting noninstitutional care, and the recent increase in the utilization of these services, ORD's research is also examining the quality and effectiveness of the services in the home setting. These efforts include comparison of the quality, case mix, and cost of noninstitutional as compared to institutional services, as well as the examination of home care provided under different payment arrangements, e.g., fee-for-service versus capitation. As part of these efforts, groupings of patients are being developed that have similar expected outcomes. Such groupings are essential since home health care serves so many different types of patients, some of whom may fully recover and some who, even under the best of circumstances, are still expected to continue to decline.

A major responsibility of ORD is assessing the effects of various Medicare and Medicaid long term care programs and policies. Among the areas where results are available are the hospice, swing bed, and home and community-based waiver program.

Since the implementation of PPS for paying hospitals, ORD has been assessing the effects of this change on other parts of the health care system. Included in this research is the examination of the effects of PPS on long term care case mix, utilization, costs, and quality. Changes in the supply of long term care providers are also being studied. Major research projects are underway to analyze the appropriateness of post-hospital care and the course and outcomes of that care. In recent years, there has been increased emphasis on examining episodes of care rather than utilization of just one type of service. Medicare files, which link hospital with post-hospital care, continue to be analyzed to provide information on trends in the utilization of post-hospital care since the passage of the PPS legislation.

In 1989 ORD awarded a major contract to conduct research concerning the impact on Medicare beneficiaries and their family members of needing or providing long term care services, as well as the impact of the quality of long term care services on acute care use. Another contract was awarded to conduct studies concerning the quality of home care services for the elderly.

DEMONSTRATION ACTIVITIES

In 1989, HCFA implemented a major demonstration aimed at testing the effectiveness of community-based and in-home services for victims of Alzheimer's disease and other dementias. This project focuses on the coordination and management of an appropriate mix of health and social services directed at the individual needs of these patients and their families.

Demonstrations also are being implemented to assess the impact of innovative reimbursement strategies to promote cost containment and foster quality of care. Efforts are also underway to identify more effective long term care quality assurance techniques and to improve the statistics and baseline information upon which future assessment of needs, problem identification, and policy decisions will be based.

Information follows on specific HCFA research and demonstrations.

Medicare Hospice Benefit Program Evaluation

Period: September 1984-June 1989
Funding: $ 1,295,156
Awardee: Abt Associates, Inc.
55 Wheeler Street
Cambridge, Massachusetts 02138
Investigator: David Kidder, Ph.D.

This contract addressed many of the questions raised by the Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248) and Deficit Reduction Act of 1984 (Public Law 98-369). The evaluation studies were to determine whether or not the reimbursement method and benefit structure of the hospice benefit are fair and equitable and promote the most efficient provision of hospice care. Also, recommendations for legislative changes were to be made as appropriate. HCFA administrative data, Part A and Part B claims, plus hospice cost report data were used as the basis of several types of analyses. The final report addressed how the Medicare hospice benefit has affected the US hospice industry; whether or not hospice care as reimbursed by Medicare is a cost effective alternative to more aggressive or less intensive non-hospice interventions; what factors explain differences in hospice and non-hospice expenditures; and projections of effects of certain changes in the hospice benefit.

An interim report, entitled "Medicare Hospice Benefit Program Evaluation," is available from HCFA as Publication Number 03248 (September 1987). The final report, entitled "Medicare Hospice Benefit Program Evaluation: Final Summary Report," (July 21, 1989) has been submitted to National Technical Information Service. In FY86 the hospice benefit payments of $20 million for about 10,500 Medicare beneficiaries who elected the benefit were less than 1 percent of the total Medicare Part A expenditures. Overall, the study found neither any significant increase in costs nor any significant savings to the Medicare program attributable to the Medicare hospice benefit during the 1984 - 1986 period. The only unambiguous finding regarding hospice cost savings is that of the freestanding hospices, compared to net additional costs generated in the provider-based hospices. Levels of overall savings were entirely due to leverage from the freestanding and Home Health Agency (HHA) based hospice beneficiaries, for whom savings were estimated to be strongly positive. Hospital-based and SNF-based hospice beneficiaries incurred net costs. Analysis of FY85 combined Part A and B expenditures found, after adjustment, no difference between conventional care patient costs and those of hospice benefit patients. Analysis of the non-random, usable Medicare hospice cost reports submitted in 1985 and 1986 show that the certified hospices are larger than are non-certified hospices (random, stratified sample), have lower average daily costs than non-certified hospices and considerably lower costs per discharge than non-certified hospices. The certified hospices that submitted cost reports generally experienced positive net Medicare revenues over the period under study, with 86 percent having positive net revenues from Medicare. A few hospices did suffer losses. Certified hospices were generally able to earn positive net revenues while conforming to the reimbursement and inpatient day limits of the Medicare program. A simulation suggests that the sample of non-certified hospices also would have profited under the benefit, with three-fourths expected to have earned positive net revenues had they participated in the Medicare hospice benefit.

Medicaid Home and Community-Based Waiver Programs for Acquired Immunodeficiency Syndrome Patients

Period: August 1988-April 1989
Funding: $ 54,679
Awardee: The Rand Policy Research Center
1700 Main Street
Santa Monica, California 90406
Investigator: Peter Jacobson, Ph.D.

Description: The purpose of this project is to develop a background paper that identifies major research questions for an evaluation of the utilisation and expenditure patterns of acquired immunodeficiency syndrome (AIDS) patients in State Medicaid home and community-based waiver programs. The study will identify appropriate data sources, review available literature on State waiver programs, and identify major research questions that should be addressed. The project will explore the reasons why States with large AIDS patient populations have not sought Medicaid home and community waivers.

The project team has reviewed current, Medicaid AIDS waivers in the States of California, Hawaii, New Mexico, New Jersey, Ohio, and South Carolina. Contacts have been made with other States considering using the waiver program. The final report is near completion.

Efficacy of Nursing Home Preadmission Screening

Period: June 1988-September 1990
Total Funding: $ 376,698
Awardee: Brown University
Division of Biology and Medicine
Providence, Rhode Island 02912
Investigator: Mary E. Jackson, Ph.D.

In recent years more than 30 States have adopted some form of nursing home preadmission screening as a method of identifying target populations for receipt of community-based services that would be at risk of institutionalization in the absence of the community services. The purpose of this project is to evaluate a nursing home preadmission screening methodology being used by the State of Connecticut, to identify those persons who would be institutionalized if community-based services (under the State's Medicaid home and community-based services waiver program) were not available. The project will analyze the extent to which the screen accurately predicts the need for a nursing home level of care or an equivalent level of community care. It is anticipated that this study will result in refinements to the Connecticut instrument, thereby assisting in the placement of long term care clients in the most cost-effective setting. The project also is including several other States' preadmission screening instruments in the analysis.

During the first year, the predictive validity of Connecticut's Preadmission Screen decision rules was preliminary assessed by applying them to three data sets of control group patients from the South Carolina Community Long Term Care Project, the Georgia Alternative Health Services Project, and the National Long Term Care Channeling Demonstration. During the second year of the study, screening and assessment data for a 6-month cohort of aplicants to Connecticut's Community-Based Services program will be reviewed. Subsequent analyses of these data will significantly impact the planned revision of Connecticut's screen.

Impact of Home Intravenous (I.V.) Drug Benefits on Beneficiary Utilization of Services

Period: August 1989-February 1991
Funding: $ 300,000
Awardee: University of North Carolina at Chapel Hill
School of Pharmacy
Chapel Hill, North Carolina 27599-7360
Investigator:

This study will construct a longitudinal 3-year data base on home I.V. drug usage in North Carolina and Florida. The project will identify home infusion therapy drugs to be studied and survey North Carolina and Florida home I.V. drug providers to identify the current volume, composition and source of payment for home I.V. drug therapy. A stratified sample of providers will be selected and site-visited. Patient charts will be reviewed and abstracted for information on diagnosis, diagnosis related groups (DRG), patient outcomes, etc. This project is in the developmental stage.

Study of the Costs of Case Management

Period: August 1988-May 1989
Total Funding: $ 33,061
Awardee: University of Minnesota
1919 University Avenue
St. Paul, Minnesota 55104
Investigator: Rosalie Kane D.S.W.

The term "case management" often is used in reference to a variety of approaches and settings involving coordination of medical and/or supportive services. This study prepared a synthesis of information on long term care case management and its costs. The report reviews case management models and data collected by 51 case management programs. Four dimensions of case management were identified: the nature of services provided; goals of the case management program; the reimbursement mechanism; and specific operational constraints. Using these dimensions, five empirical models of case management were identified: fee-for-service; private insurance; capitated/consolidated; public-funded with purchase authority; and broker. Data on case-management costs and cost determinants are presented. A theoretical model relating program incentives and outcomes was developed and the limitation of the data for estimating this model is discussed.

Study of Inappropriate Use of Medications by Medicare Beneficiaries

Period: August 1988-April 1989
Total Funding: $ 23,279
Awardee: University of Minnesota
1919 University Avenue
St. Paul, Minnesota 55104
Investigator: Roger Feldman, Ph.D.

This study synthesized the existing literature on health problems associated with the inappropriate use of prescription medications by the noninstitutionalized elderly population. The study explored the extent of present knowledge regarding the prevalence of such a problem, which medications are most likely to be prescribed or used improperly, and possible interventions that might lead to a reduction in medical problems associated with inappropriate medication use by the elderly. The final report of the study suggest that, although the literature does not certify the extent of inappropriate medication use by elderly Medicare beneficiaries, it does suggest that overuse of medications, adverse drug reactions, drug interactions, and non-compliance are common in the elderly. The report recommends a research agenda which includes developing improved criteria for judging the appropriateness of medication use and applying these criteria to a population-based sample of elderly Medicare beneficiaries.

Research Synthesis and Recommendations on the Quality of Selected Long-Term Care Services and on the Relationship between Long Term Care Services and Reduced Acute Care Expenditures

Period: October 1988-November 1989
Funding: $ 234,542
Awardee: University of Colorado
1355 South Colorado Boulevard, Suite 706
Denver, Colorado 80222
Investigator: Robert Schlenker, Ph.D.

This study conducted research in response to mandates in section 207 of the Medicare Catastrophic Coverage Act of 1988 relating to (1) the quality of long-term care services (in community-based and custodial settings), and (2) effects of the provision of long-term care services on reduction of expenditures for acute health care services. The project objectives included the development of recommendations for additional research in these areas.

Two reports were prepared entitled, "Future Research on the Quality of Long Term Care Services in Community-Based and Custodial Settings" and "State Survey of Community-Based Care Systems." An additional report, which identifies recommendations for further research on the relationship between long-term care services and acute care expenditures, was submitted late in 1989.

Study of Home Health Care Quality and Cost Under Capitated and Fee-For-Service Payment Systems

Period: June 1987-June 1992
Funding: $ 1,683,773
Awardee: Center for Health Policy Research
1355 South Colorado Boulevard
Denver, Colo. 80222
Investigator: Peter Shaughnessy, Ph.D.

This project will compare the quality and cost of home health care provided under capitated and non-capitated payment systems for two groups of Medicare beneficiaries: clients admitted to home health care following a hospitalization, and those who have not been in a hospital for at least 30 days prior to the initiation of home care. Process and outcome quality measures are being developed and will be used with patient-level resource use measures to assess cost effectiveness of care in the two settings.

The project is currently recruiting HHAs for the data collection phase. Data gathering is scheduled to begin in mid-1990. Secondary data detailing Medicare utilization and costs are being analyzed.

Development of Outcome-Based Quality Measures for Home Health Services

Period: September 1988-December 1992
Total Funding: $ 1,965,389
Contractor: Center for Health Policy Research
1355 S. Colorado Boulevard
Denver, Colorado 80222
Investigator: Peter Shaughnessy, Ph.D.

Most efforts to evaluate home health care quality have focused on the HHA organizational structure or the process of care delivery but have neglected patient outcome measures as quality indicators. The purpose of this contract is to develop and test outcome-based measures or indicators of quality for Medicare home health services. The measures developed should be reliable and valid for use in monitoring and comparing quality of home health care across agencies recognizing possible confounding factors such as case mix. The measures that are tested will be selected from a broad range of possible approaches including general health and functional status measures, indicators that are linked to specific diagnostic conditions and/or services, and measures that are more practical and less costly to administer. Criteria that will be used in the selection of measures to be tested include feasibility, reliability, validity, impact on quality access, and the cost/burden of data collection to the HCFA and HHAs.

During 1989, the contractor prepared syntheses of existing quality assurance approaches and of prior research into quality of home health care and a report describing the detailed project design. Data collection is scheduled to start in early 1990. During 1989, the Robert Wood Johnson Foundation awarded a grant to the Center for Health Policy Research that is intended to complement this contract study; the grant focuses on developing quality measures for adult non-Medicare home care services and populations and uses clinical panels to identify potential measures.

Develop and Demonstrate a Method for Classifying Home Health Patients to Predict Resource Requirements and to Measure Outcomes

Period: June 1987-June 1990
Total Funding: $ 968,332
Awardee: Georgetown University
Georgetown School of Nursing
3700 Reservoir Road, N.W.
Washington, D.C. 20007
Investigator: Virginia Saba, RN, Ed.D

The purpose of this cooperative agreement is to develop a method for classifying and assessing Medicare patients receiving care in certified HHAs that will predict resource requirements and measure outcomes of care. An abstract form was developed to collect information concerning relevant indicators of resource requirements and outcomes. This form will be used to collect data from the home health records of approximately 9,000 Medicare patients recently discharged by approximately 600 HHAs, stratified by size, ownership, and geographic location. The data are being analyzed, using multivariate and statistical techniques, to determine which variables are most predictive of resource requirements. The selected relevant variables will be incorporated into an assessment and case-mix classification tool that categorizes patients according to predicted resource requirements. Patient responses to home health care will also be evaluated to develop a quantitative outcome measurement tool. A data base of participating HHA and Medicare patient characteristics will also be produced. The collected data are being analyzed. A final report is expected by September 1990.

Home Care Quality Studies

Period: October 1989-March 1993
Total Funding: $ 2,642,445
Contractor: University of Minnesota
School of Public Health
Box 197, 420 Delaware Street, S.E.
Minneapolis, Minnesota 55455
Investigator: Robert Kane, M.D.

The purpose of this study is to carry out research in regard to: (1) The quality of long-term care services in community-based and custodial settings, and (2) The effectiveness of (and need for) State and Federal consumer protections which assure adequate access to and protect the rights of Medicare beneficiaries who are provided long-term care services (other than in a nursing facility). The project will focus on in-home care, examining those traditional home health services which are reimbursed by Medicare and Medicaid, as well as personal care and supportive services which have more recently been covered by Federal and State sources of funding. Key project tasks will include: (1) development of a taxonomy clarifying the various objectives/goals ascribed to home and community-based care, from the various perspectives of consumers, payers, and care providers; (2) development and feasibility-testing of a survey design which would measure the extent of need for, and adequacy of, home care services for the elderly; (3) a study of variations in labor supply and related effect(s) on home care quality, as well as factors that contribute to these variations; and (4) recommendations to improve the quality of home and community-based services by identifying "best practices" and promising quality assurance approaches. The contract was awarded on September 29, 1989.

Urban/Rural Variation in Home Health Agency and Nursing Services

Period:	September 1989-August 1990
Funding:	$155,096
Awardee:	Brandeis University Research Center 415 South Street Waltham, Massachusetts 02254
Investigator:	Christine Bishop, Ph.D.

Brandeis University and The Urban Institute will compare urban and rural home health services and nursing home services to determine variation between provider characteristics and service utilization patterns. The underlying cost structures of urban/rural HHAs will be studied as well. This study is national in scope and will utilize several Medicare data bases for analysis.

Analysis of Costs, Patient Characteristics, Access and Service Use in Urban/Rural HHAs

Period:	September 1989-August 1990
Funding:	$103,240
Awardee:	University of Minnesota Research Center 420 Delaware Street, S.E., Box 729 Minneapolis, Minnesota 55455
Investigator:	John Nyman, Ph.D.

The purpose of this task is to study urban and rural differences in HHA costs, patient characteristics, access to care, and service utilization patterns. The study will be performed in two parts: (1) Costs, patient characteristics, and service utilization patterns will be analyzed using home health care data from the State of Wisconsin. (2) Access to home health care services will be examined with use of patient-level Medicare data. Mathematica Policy Research, Inc., as a subcontractor for this study, will apply two of the "Hospital Aftercare" guidelines (see the project described below) to Medicare plan of treatment data to develop a measure of access between urban and rural recipients of home health care.

Natural History of Post-Acute Care for Medicare Patients

Period:	December 1986-September 1990
Funding:	$ 3,373,670
Awardee:	University of Minnesota School of Public Health 420 Delaware Street, S.E.,Box 197 Minneapolis, Minnesota 55455
Investigator:	Robert Kane, M.D.

This is a study of the course and outcomes of post-acute care. It has two major components: analysis of Medicare data assess differences in patterns of care across the country and to determine the extent of substitution where various forms of post-acute care services are more or less available, and detailed examination of clinical cases from the most common diagnostic-related groupings receiving post-acute care in a few selected locations. Measure of the complexity of the clinical cases will be developed using a modification of the medical illness severity grouping system. This project is jointly funded with the Office of the Assistant Secretary for Planning and Evaluation.

Data collection is continuing. A report of the findings from the analysis of national Medicare data will be published late in 1989. This project is analyzing preliminary data in order to address questions about the need for and the consequences of providing long-term care to post-hospital patients.

Analysis of Hospital Aftercare Under Prospective Payment

Period:	April 1986-October 1989
Funding:	$ 1,436,268
Contractor:	System Sciences, Inc. 4330 East-West Highway Bethesda, Maryland 20814
Investigator:	Cyrus Baghelai

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The purpose of this pilot study was to develop and field test methods for determining the appropriateness of post-discharge aftercare services. Study methods involved classifying patients at the time of their discharge from the hospital according to their post-discharge service needs and applying professionally developed guidelines to project aftercare needs. Projected need was then compared with services received based on interview data.

The project methodologies and instrumentation have been completed and field tested. The final report has been submitted.

Trends in Patterns of Post-Hospital Service Use and Their Impact on Outcomes

Period:	June 1987-May 1990
Funding:	$ 293,922
Awardee:	Duke University Demographic Studies 2117 Campus Drive Durham, North Carolina 27706
Investigator:	Kenneth Martin, Ph.D.

This project is examining the pattern of care delivered after hospitalization for different types of hospitalized patients, as distinguished by diagnosis, age, sex, and other data elements contained on the Medicare Part A bill. Post-hospital use patterns are examined in terms of types and duration of Medicare services received and the proportion of patients receiving care. Similar patterns will then be examined for non-hospitalized Medicare beneficiaries.

The project has focused on expanding and cleaning data files used in previous analyses.

Prospective Payment Systems and Post-Hospital Care: Use, Cost, and Market Changes

Period:	September 1985-September 1989
Funding:	$ 706,118
Awardee:	Georgetown University Center for Health Policy Studies 2233 Wisconsin Avenue, N.W. Washington, D.C. 20007
Investigator:	Judith Feder, Ph.D. and William Scanlon, Ph.D.

The purpose of the project is to determine how much the hospital PPS shifts care from the hospital to SNF's and home health providers and to analyze the impact of this shift on total costs to Medicare and on changes in SNF characteristics that are likely to cause an increase in use by Medicare beneficiaries in the future. Medicare claims will be analyzed to determine how PPS has affected total service use (hospital, SNF and home health) and costs for hospital patients. In addition, SNFs will be surveyed to identify changes in nursing home patients, services, and market structure likely to affect Medicare use. The survey will be supplemented with data from the Medicare/Medicaid Automated Certification System (MMACS), SNF cost reports, and other sources.

Major project activities include:

- Completion of the nursing home survey.
- Analysis of survey and MMACS data.
- Initiation of claims analysis.
- Completion of 1982 and 1985 Medicare claims processing for pre/post-PPS analysis.
- Completion of a three-stage sampling process of study hospitals.

The final report is expected by the end of 1989.

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Changes in the Post-Hospital Care Utilization Among Medicare Patients

Period: August 1989-July 1990
Funding: $ 102,247
Awardee: The Rand Policy Research Center
1700 Main Street
Santa Monica, California 90406
Investigator: Richard Neu, Ph.D.

This project will create a data file linking Medicare billing records for inpatient hospital and post-hospital care during 1987 and 1988. Rand will use this file to document changes in post-hospital utilization among Medicare patients in recent years. The analyses will include an examination of SNF, HHA, and rehabilitative hospital care. This study is in the early developmental stage.

Massachusetts Health Care Panel Study of Elderly - Wave IV

Period: July 1984-January 1990
Funding: $ 152,408
Awardee: Harvard University/Harvard Medical School
1350 Massachusetts Avenue
Holyoke Center 458
Cambridge, Massachusetts 02138
Investigator:

This project collected the fourth wave of self-reported information from the Massachusetts Health Care Panel Study cohort, a group that was selected 10 years as a statewide probability sample of all persons 65 years of age or over. The data from the first three waves were analyzed and the results have been reported in numerous articles in professional journals. In this project, the data from all four waves are being analysed to determine markers of functional decline during pre-death, predictors of long-term care institutionalization, and interrelationships between physical, behavioral, and social characteristics and subsequent health care and social service utilization and mortality.

All of the data for this project have been gathered. Analysis of the data is underway, and a final report is expected in 1990.

Cohort Analysis of Disabled Elderly

Period: August 1988-January 1990
Funding: $ 89,986
Awardee: Brandeis University Research Center
415 South Street
Waltham, Massachusetts 02254
(The Urban Institute - subcontractor)
Investigator: Korbin Liu, Sc.D.

The project applies event history analyses to nationally representative data sources to derive estimates of the transitions between various health status categories and the duration within categories for different age groups. These data sources include: Multiple years of National Health Interview Surveys, mortality records of National Long-Term Care Surveys, Longitudinal Study on Aging, and the National Nursing Home Surveys. Researchers assigned to the project will also estimate, based on the type and level of morbidity and disability categories, the risks involved and duration of specific types of acute and long-term care.

To date, many of the key data sets have been formatted for analysis and initial analyses have been conducted. In the coming project year, the analysis employing grade of membership methodology to control for population heterogeneity across the data sets will be completed.

Medicaid Tape-to-Tape: Research Data and Analysis

Period: March 1986-October 1990
Funding: $ 5,141,406
Contractor: SysteMetrics, Inc.
104 West Anapamu Street
Santa Barbara, California 93101
Investigator: Embry Howell

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This project continues the development and implementation of a Medicaid person-level data set from five State Medicaid Management Information Systems (MMIS) (California, Georgia, Michigan, New York, and Tennessee). This effort will acquire data on enrollment, claims, and providers for 1985-88. These data will be used to create uniform files, provide descriptive reports, support analysis and evaluation, and develop methodology for online data base management. This project will provide a continuum of 9 years of uniform Medicaid data for the conduct of analysis of program management, evaluation of policy alternatives, and feedback to States in the area of Medicaid financing.

Currently, project staff are acquiring and processing person-level enrollment, claims, and provider data that have been obtained from State MMIS. Project staff are also linking the data base to other kinds of health statistics to expand the uses of the data. The project will continue to produce early return tabulations that summarize enrollment, utilization, and expenditures data for each year and each participating State. Research is underway on a series of special topics including: capitation in Medicaid, spend down and its relationship to nursing home entry, the chronically mentally ill, hip fractures among the elderly, inpatient hospital use by Medicaid children, hospital reimbursement, Medicaid drug utilization, obstetrical services, physician volume, AIDS and Medicaid providers. The following reports have been published:

- Acquired immunodeficiency syndrome in California's Medicaid Program, (1981-1984),"Health Care Financing Review, Vol. 10, No.1, HCFA Pub. No. 03274, Fall 1988.
- Utilization and Expenditures under Medicaid for Supplemental Security Income Disabled," Health Care Financing Review, Vol. 11,No. 1, HCFA Pub. No. 03286, Fall 1989.
- Prenatal, Delivery, and Infant Care Under Medicaid in Three States," Health Care Financing Review, Vol. 10, No. 4, HCFA, Pub. No. 03284, Summer 1989.

A Longitudinal Study of Case-Mix Outcomes and Resource Use in Nursing Homes

Period:	September 1985-November 1988
Total Funding:	$ 722,135
Awardee:	Brown University Box G Providence, Rhode Island 02912
Investigator:	Vincent Mor, Ph.D.

This study of natural histories of patient outcomes was designed to analyze the variation in outcomes for nursing home residents and the relationship between case-mix adjusters and these outcomes. Using several large administrative data sets, the project focused on quality based outcome measures such as changes in physical function, discharge status, and changes in clinical conditions and the receipt of services. Data on residents from the National Health Corporation, New York State, and Texas facilities were used in these analyses.

The study consisted of three major areas of analyses. The first set of analyses described probabilities of functional change and discharge locations for a cohort of residents newly admitted to the nursing home. Analyses of the changing risk of discharge dead, to home, and to the hospital over the first year of stay show that early in the stay, a positive outcome is strongly related to the functional abilities of the residents. The longer residents remain in the facility, the less likely they are to leave.

Three different data sets were then used to describe the relationship between case-mix adjusters and quality indicators. Outcomes examined include several measures of physical functioning, decubitus ulcers, urinary tract infections, contractures, and the use of restraints and bladder and bowel definitions used, and populations studied, some common patterns were identified. Changes in functional abilities were more consistently associated with age than with diagnosis.

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The final phase of analysis was a validation of three multivariate models that predict 6-month outcomes. The models predict functional improvement, functional decline, and death for a cross-section of nursing home residents. Each model was initially developed with data from Rhode Island, as part of a study funded by the National Center for Health Services Research. Using data from New York State and National Health Corporation nursing home residents, these three models were re-estimated. Overall, the majority of terms in the three models were related to the outcomes as found in the Rhode Island models. There was some variation in the magnitude and significance of the relationships. However, robust associations were found for parameters that were most consistently defined and those that were less dependent on variations in practice patterns. Functional status, as measured by the eating and transfer, was the patient characteristic most consistently related to prevalence and incidence of decubitus ulcers, urinary tract infections, contractures, and restraint use.

Several papers based on this research have appeared in the literature. The final report has been received and will be submitted to NTIS.

Community Care for Alzheimer's and Related Diseases

Period: June 1987-December 1989
Total Funding: $ 127,970
Awardee: The Urban Institute
2100 M Street, N.W.
Washington, D.C. 20037
Investigator: Korbin Liu, Sc.D.

The awardee will analyze data from the National Long Term Care Channeling Project (1982-84) to determine the range of services, sources, and costs of care used by community residents with cognitive impairment and to determine the risks of their entering nursing homes, as a function of physical and mental health status, and the types and amounts of care received in the community. The study is expected to provide baseline information for the Alzheimer's disease demonstration project that is congressionally mandated in section 9342 of the Omnibus Budget Reconciliation Act of 1986.

Analyses of several cost centers for community care and risks of nursing home admissions currently are being carried out. In addition, HCFA has approved an additional task that permits an assessment of the feasibility of using a longitudinal data base from the Triage/Connecticut Community Care, Inc. This data base contains details on patient assessment and management systems that may provide additional information on the costs of persons with Alzheimer's disease and related disorders.

Feasibility Analysis for Pathways to Long Term Care Project

Period: August 1989-November 1989
Funding: $19,994
Awardee: Brandeis University Research Center
415 South Street
Waltham, Massachusetts 02254
Investigator: Walter Leutz, Ph.D.

This study will determine the feasibility of analyzing Social/Health Maintenance Organization data on service use that tracks individuals as they make a transition from a state of health to one of severe impairment. If a sufficient amount of data is available, subsequent analysis may be approved with additional funds to determine whether definable "pathways" could be derived. These pathways to long term care could assist in case management practice and provide outcome related information regarding the use of long term care services in a managed care setting.

The feasibility study was completed November 30, 1989. Based on the study, a decision will be made whether or not to fund additional activities.

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Activities of Daily Living (ADL) Measurements as Determinants of Eligibility

Period: August 1989-May 1990
Funding: $99,991
Awardee: Brandeis University Research Center
415 South Street
Waltham, Massachusetts 02254
Investigators: John Capitman, Ph.D. and Korbin Lui, Sc.D.

The study will use the National Long Term Care Survey, Channeling data and the Social Health Maintenance Organizations' Comprehensive Assessment Form data to examine issues associated with defining and measuring ADLs for use as eligibility criteria. A cost analysis will be performed and other issues associated with using ADL scores as eligibility criteria for Medicare services, will be discussed.

Among the questions to be addressed are:

- What level of ADL impairments is used to trigger eligibility?
- Which ADL items should be used?
- Under what circumstances should assessments be performed, and by whom?

The study is in the early developmental stage.

Study of Adult Daycare Services

Period: June 1989-January 1990
Funding: $93,750
Awardee: University of California at San Francisco
Investigator: Rick Zawadski, Ph.D.

Section 208 of the (now repealed) Medicare Catastrophic Coverage Act of 1988 mandated an updated survey of adult day centers. The legislation requests that this survey provide information on: 1) who is served by adult day centers; 2) how many centers are there and where are they located; 3) what services do they provide; 4) what are the characteristics of operating these centers; 5) who now funds these centers; 6) what is the cost of operating these centers; 7) are there licensing, certification, and quality assurance standards governing these centers; and 8) how do these characteristics vary by State.

An initial 1985 survey was performed by the National Institute of Adult Daycare (NIAD), a constituent unit of the National Council on the Aging, with the assistance of a few adult day center consultants.

Status: Funding for the survey was obtained from the American Association for Retired Persons. All the known and designated adult day centers in the United States were mailed a survey during February 1989. A contract was awarded to the University of California at San Francisco to perform the analyses of the survey data. Both Congressional reports are anticipated for completion by June 1990.

Long Term Care Studies

Period: September 1989-September 1994
Funding: $ 3,790,234
Awardee: Health and Sciences Research Incorporated
Investigator: David Kennell, Ph.D.

This project will conduct research related to the delivery and financing of long term care services for Medicare beneficiaries. The project will focus on four major areas:

1) the financial characteristics of Medicare beneficiaries who receive or need long term care services;
2) how the characteristics of Medicare beneficiaries affect their utilization of institutional and non-institutional long term care services;
3) how relatives of Medicare beneficiaries are affected financially and in other ways because the beneficiaries require or receive long term care services; and
4) how the provision of long term care services may reduce expenditures for acute health care services.

Analyses will use existing long term care and other survey data bases, such as the National Long Term Care Surveys, the Longitudinal Study of Aging, the National Nursing Home Survey, the Survey of Income and Program Participation and the National Medical Care Expenditure Survey. Medicare administrative records and other extant information will also be utilized. Three reports are required under the contract. The project was awarded on September 29, 1989. The first report is scheduled for December 1990.

Goals and Strategies for Financing Long Term Care

Period:	August 1989-March 1990
Funding:	$95,409
Awardee:	University of Minnesota Research Center 420 Delaware Street, S.E., Box 729 Minneapolis, Minnesota 55455
Investigator	Mark Pauly, Ph.D.

The purpose of this project is to use concepts drawn from a number of disciplines - economics, decision sciences, policy analysis, sociology, and demography - to develop statements of possible objectives for long term care insurance. Defining objectives will include an analysis of benefits and costs from potential changes in financing and an analysis of expected behavioral changes in response to changes in financing. The meaning of these objectives will then be illustrated by applying them to several different types of policy proposals:

- Subsidization of private insurance;
- Employer-provided insurance;
- "Whole-life" versions of insurance;
- Means tested public insurance;
- "Medicaid-equivalent" subsidies;
- "Catastrophic" public insurance; and
- Public provision of information on Medicare coverage and the need for insurance.

The study is in the early developmental stage.

Long Term Care Supply and Medicare Hospital Utilization

Period:	August 1989-March 1990
Funding:	$ 47,986
Awardee:	Abt Associates, Inc. 55 Wheeler Street Cambridge, Massachusetts 02115 Robert Schmitz, Ph.D.

The purpose of this project is to investigate how local variations in the availability of nursing home beds affect Medicare rates of hospitalization. Effects on the number of admissions, the number of hospital readmissions, the number of hospital days used, and the costs per Medicare Part A enrollee are to be evaluated. Urban-rural differences will be assessed. The impact of community long term care services, Medicare risk contract Health Maintenance Organization services and the Prospective Payment System upon Medicare Part A utilization are to also be evaluated. The study is in the early developmental stage.

PACE (On Lok) Case Study

Period:	August 1989-January 1991
Funding:	$ 172,138
Awardee:	University of Minnesota Research Center 420 Delaware Street, S.E., Box 729 Minneapolis, Minnesota 55455
Investigator:	Robert L. Kane, M.D.

This study will provide a descriptive analysis of the elderly stages of the Program for All-inclusive Care for the Elderly (PACE) demonstration. The study will examine in detail the model of delivery provided by On Lok Senior Health Services, San Francisco, California, and the degree to which aspects of this model are successfully replicated in as many as eight sites nationwide through guided interviews, site visit observations, and review of written materials pertaining to site development and operations. The results of the study are expected to have utility as subsequentsites are developed for later implementation. The study is in the initial design phase. Initial site visits to On Lok and PACE sites are scheduled for late 1989.

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Analysis of State Systems for Providing Intermediate Care Facility for the Mentally Retarded and Other Care for the Mentally Retarded

Period: June 1987-May 1989
Funding: $ 88,268
Awardee: Center for Residential and Community Services
University of Minnesota
150 Pillsbury Drive, S.E.
Minneapolis, Minnesota 55455
Investigator: Charles Lakin, Ph.D.

This project updated information on the status of and changes in residential services for the mentally retarded gathered by this awardee for 1977 and 1982 in a previous HCFA-funded grant. Data on the current status of the intermediate care facility for the mentally retarded (ICF/MR) program, which were obtained through the Inventory of Long Term Care Places, the sampling frame for the institutional component of the National Medical Expenditures Survey, were analyzed and supplemented by case studies of selected State's programs for serving the mentally retarded.

This project analyzed data from the tape of the Inventory of Long Term Care Places and conducted in-depth State studies. A final report was received in May 1989 and is entitled "Medicaid Services for Persons with Mental Retardation and Related Conditions." It is available from the NTIS. Study results show that community-based services have become the primary model of care for persons with mental retardation and related conditions. Conversely, the ICF/MR program has shown little growth in the recent past and the numbers of persons served by this program have decreased in a majority of states. These facts, as well as the wide acceptance of the Home and Community-Based Services waiver, indicate the need to begin viewing the services system for persons with mental retardation as a community-based, rather than an institutionally-based system.

Long Term Care: Elderly Service Use and Trends

Period: August 1989-August 1990
Funding: $245,249
Awardee: The Brookings Institution
175 Massachusetts Avenue, N.W.
Washington, D.C. 20036-2188
Investigator:

This project has three objectives: (1) an analysis of the financial status of nursing home users; (2) an analysis of the determinants of home care use; and (3) projections of the numbers and level of disability among the elderly and their use of long term care services. Data from the following major surveys will be used: 1982 - 1984 National Long Term Care Surveys: The 1984 - 1986 Supplement on Aging/Longitudinal Study of Aging; and the 1984 Survey of Income and Program Participation. Data will be analyzed using cross-tabulations and logistic and Least squares regression analyses and the Brookings/ICF simulation model (updated and revised). The project has just begun. Analytical data files are being developed.

Analysis of Long Term Care Payment Systems

Period: April 1983-December 1988
Funding: $ 1,394,293
Awardee: Center for Health Services Research
University of Colorado
1355 South Colorado Boulevard
Suite 706
Denver, Colorado 80222
Investigator: Robert Schlenker, Ph.D.

This project is a comparative analysis of long term care reimbursement systems in seven States (Colorado, Florida, Maryland, Ohio, Texas, Utah, and West Virginia). The study will combine an empirical analysis of nursing home costs and payments and the determinants of costs with a detailed qualitative analysis of the operations of the reimbursement systems.

The comparative analysis across States will be performed through a unique "comparison-by-substitution" method that assesses reimbursement for nursing homes in one State under the assumption that the other States' reimbursement systems are in effect. Data sources for this study include primary facility information and patient samples, as well as secondary sources such as cost reports.

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Major project activities include:

Volume 1:	A Multi-State Analysis of Medicaid Nursing Home Payment Systems, December 1988.
Volume 2:	Administering Nursing Home Case Mix Reimbursement Systems: Issues of Assessment, Quality, Access, Equity and Cost, December 1988.
Volume 3:	Analyzing Nursing Home Capital Reimbursement Systems, December 1988.

Evaluation of "Life-Continuum of Care" Residential Centers in the United States

Period:	January 1985-September 1989
Funding:	$ 832,871
Awardee:	Hebrew Rehabilitation Center for the Aged 1200 Centre Street Boston, Massachusetts 02131
Investigator:	Sylvia Sherwood, Ph.D.

The objective of this 3-year project is to obtain information about the characteristics of continuum of care residential center (CCRC) facilities and their residents and compare them with elderly residents living in the community, with respect to quality of life and health, service costs, and utilization. Data will be gathered from 20 CCRCs in four areas: California, Arizona, Florida, and Pennsylvania. These sites will be stratified according to the type of contract offered (extended versus limited), the age of the facility, and the income level of those enrolled. Three types of CCRC residents will be selected from the sites for the study sample: new admissions (580), existing residents, both short- and long-stay residents (1,640), and residents who died just prior to or during the field data gathering period (660). Quality of life and service utilization data will be gathered at two points in time, at baseline and 12 months later. Three types of comparison samples will be employed:

- A representative sample of elderly in their own homes or independent apartments (2,422).
- A national sample of elderly living in congregate housing settings (2,350).
- A representative sample of elderly who have died and for whom retrospective data are available for their last year of life (1,500).

The final report is expected by the end of 1989.

Financial Impact to Beneficiaries of Nursing Home Care

Period:	August 1988-February 1990
Funding:	$ 129,888
Awardee:	Brandeis University Research Center 415 South Street Waltham, Massachusetts 02254
Investigator:	Korbin Liu, Sc.D.

This project will use the Urban Institute's Transfer Income Model (TRIM)-2 for State estimates and the Connecticut Nursing Home Inventory data base to calculate nursing home use and payments. The TRIM-2 model is a microsimulation model, based on the 1984 Current Population Survey, used in forecasting use and payments. The Connecticut Inventory data base contains patient-specific information on all nursing home patients (private and public) from 1977 to the present. In addition, the 1985 National Nursing Home Survey will be used to analyze several dimensions of nursing home use. From the collected data, estimates will also be made for the nursing home patients' spend-down provision.

A report entitled "Changes in Duration and Outcomes of Nursing Home Stays: 1977 - 1985" was completed. The report concludes that changes have occurred in the overall composition of nursing home admissions in the intervening 8 years between 1977 and 1985. The analysis of changes between 1977 and 1985 among nursing home admissions indicates that the nursing home patients had become older, more disabled, and more likely to have been admitted for terminal care. This conclusion is reflected by the

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shorter length of stay for the total cohort of nursing home admissions, the increase in mortality outcomes at discharge, particularly for persons with short stays (e.g., less than 30 days), and the disability characteristics of patients at admission.

Reasons for the changes in the composition of nursing home admissions are not as clear as the occurrence of the changes themselves. One possibility is that the relatively slow growth of nursing home beds between 1977 and 1985 relative, for example, to the 8 years before 1977, has resulted in a selection process whereby the most disabled persons are being admitted. Another possible reason is the change in acute care utilization that occurred between 1977 and 1985. Although many changes were occurring, the most widely known was Medicare's hospital PPS, which provided strong incentives for hospitals to discharge patients as quickly as possible. As a result, the use of nursing homes to substitute for the tail end of hospital stays was widely expected. Study findings that greater proportions of short-stay patients (i.e., less than 30 days) were discharged dead or to a hospital in 1985 relative to 1977 is consistent with the theory that greater use of nursing homes for post-acute care was a direct result of the hospital PPS policy.

During the coming year, the project will complete:

(1) Development and analysis of a synthetic cohort of nursing home admissions with data from the Connecticut nursing home inventory.

(2) Estimation of spenddown rates and numbers of persons at the State level through the use of the TRIM model.

Can Geriatric Nurse Practitioners Improve Nursing Home Care?

Period:	September 1983-December 1988
Funding:	$ 673,759
Awardee:	The Rand Corporation 1700 Main Street Santa Monica, California 90406
Investigator:	Joan Buchanan, Ph.D.

The purpose of the study is to evaluate the potential of the use of geriatric nurse practitioners for improving outcomes of care and containing costs in SNFs. The 30 nursing homes that participated in the Mountain States Health Corporations (MSHC) geriatric nurse practitioner (GNP) demonstration project were compared with 30 nursing homes in the region that did not participate. Comparisons were made of:

- Patient outcomes.
- Process of care.
- Nursing home costs.
- History of certification deficiencies.

Homes were matched by State, ownership, bed size, and urban, suburban, or rural location.

Study findings indicated that the MSHC GNP program had a limited positive effect. If the employment market for nurses remains unchanged, the program will prove relatively inexpensive to implement, especially in larger facilities. Nor did the program adversely affect nursing home per diem costs or profits. Further it would appear that GNPs decreased hospital use for patients newly admitted to nursing homes.

The following publications are available:

1. The Financial Impact of Nursing Home-Based Geriatric Nurse Practitioners: An evaluation of the Mountain States Health Corporation GNP Project," Santa Monica, California: The Rand Corporation, Report #R-3694-HCFA/RWJ, May 1989.
2. "Geriatric Nurse Practitioners as Nursing Home Employees: Implementing the Role" Gerontologist 28(4), 1988.
3. "Effects of a Geriatric Nurse Practitioner on Process and Outcome of Nursing Home Care" AJPH 79(9), September 1989.

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Analysis of Long Term Care Payment Systems

Period: April 1983-December 1988
Funding: $ 1,394,293
Award: Cooperative Agreement
Awardee: Center for Health Services Research
University of Colorado
1355 South Colorado Boulevard,
Denver, Colorado 80222
Investigator: Robert Schlenker, Ph.D.

This project conducted a comparative analysis of long term care reimbursement systems in seven States (Colorado, Florida, Maryland, Ohio, Texas, Utah, and West Virginia). The study combined an empirical analysis of nursing home costs and payments and the determinants of costs with a detailed qualitative analysis of the operations of the reimbursement systems. The comparative analysis across States was performed through a unique "comparison-by-substitution" method that calculated reimbursement for nursing homes in one State under the assumption that the other States' reimbursement systems were in effect. Data sources for this study included primary facility information and patient samples, as well as secondary sources such as cost reports.

The final report is available in three volumes:

Volume I: A Multi-State Analysis of Medicaid Nursing Home Payment Systems, December 1988.

Volume II: Administering Nursing Home Case Mix Reimbursement Systems: Issues of Assessment, Quality, Access, Equity and Cost, December 1988.

Volume III: Analyzing Nursing Home Capital Reimbursement Systems, December 1988.

Additional reports are also available:

- "Case-Mix Measures and Medicaid Nursing Home Payment-Rate Determination in West Virginia, Ohio, and Maryland," March 1984.
- "Overview of Medicaid Nursing Home Reimbursement Systems," March 1984.
- "Case-Mix and Capital Innovations in Nursing Home Reimbursement," August 1984.
- "An Analysis of Long Term Care Payment Systems: Research Design," October 1984.
- "The Long Term Care Policy Environment in Seven States," May 1985.
- "Medicaid and Non-Medicaid Case-Mix Differences in Colorado Nursing Homes," September 1985.
- "Case-Mix Reimbursement for Nursing Home Services: A Three-State Simulation Model," October 1985.
- "Case Mix in Connecticut Nursing Homes: Medicaid Versus Non-Medicaid, Profit Versus Non-Profit, and Urban Versus Rural Patient Groups," December 1985.
- "Analyzing Nursing Home Profits," May 1986.
- "Case-Mix Reimbursement for Colorado Nursing Homes."

Prevention of Falls in the Elderly

Period: September 1984-December 1989
Total Funding: $ 695,894
Awardee: Kaiser Foundation Research Institute
Health Services Research Center
4610 Southeast Belmont Street
Portland, Oregon 97215
Investigator: Mark Hornbrook, Ph.D.

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In September 1984, a cooperative agreement was awarded to the Kaiser Foundation Research Institute to test both the cost-effectiveness of a comprehensive environmental and behavioral program designed to prevent falls in the elderly and to estimate the net financial benefits or costs to a health maintenance organization and the Medicare program of a given level of falls prevention for a defined target population. Funding support for this demonstration was supplemented by the National Institute on Aging, the Robert Wood Johnson Foundation, and Kaiser Foundation Hospitals, Inc. The project was conducted at the Health Services Center, Kaiser Permanente Medical Care Program in Portland, Oregon. This was a randomized study of 2,509 households with one or more Kaiser members aged 65 or over who were recruited into two groups, control and intervention. Baseline data on household environmental circumstances and fall hazards and the member's physical and psychological health status were obtained during a home audit. Participants were randomized into one of the two groups. Participants in the intervention group were offered a special falls prevention program that included a self-management educational curriculum and the installation of safety equipment and minor home renovations to correct safety hazards. In addition, a retrospective medical record review will be completed for a blind control group consisting of a 5 percent sample of Kaiser members age 65 and over to measure the incidence of falls-related medical care use.

The project is in its fifth year of operation. The follow-up period to assess the incidence of falls ended December 1987. The cooperative agreement was extended until December 1989 to allow completion of the evaluation of the program's effectiveness in lowering the frequency and severity of falls and to determine whether the program is cost-effective (i.e., whether the cost of the intervention is offset by the savings in medical costs associated with the prevented falls). The final report is expected by the spring of 1990.

Modifications of the Texas System of Care for the Elderly: Alternatives to the Institutionalized Aged

Period: January 1980-June 1990
Total Funding: Waivers only
Grantee: Texas Department of Human Resources
701 West 51st Street
P.O. Box 2960
Austin, Texas 78769
Investigator: Kent Gummerman, Ph.D.

The purpose of this project is to reduce the growth of nursing homes in Texas and, at the same time, expand access to community care services for needy Medicaid individuals. It is being accomplished by directly changing the operating policies of the State's title XIX and title XX programs -- specifically, by eliminating the State's lowest level of institutional care, ICF-II. Existing organizations responsible for the State's title XIX and title XX programs are responsible for project implementation.

Substantial progress has been made in achieving project objectives. In March 1980, there were 15,486 individuals in the ICF-II group. As of December 1988, there were 506 ICF-II clients remaining. From March 1980 to December 1988, the total institutional population also decreased from 64,820 to 54,365 clients (a reduction of 16.1 percent), while the community-care population has grown from 30,792 to 46,958 -- an increase of slightly more than 52 percent. This project was scheduled to terminate on December 31, 1989, but a 6-month extension (through June 1990) is required by the 1989 budget reconciliation legislation.

The Medicare Alzheimer's Disease Demonstration

Period: September 1989-September 1993
Funding: $1,999,812
Awardee: Institute for Health and Aging
University of California San Francisco
210 Filbert Street
San Francisco, California 94133
Investigator: Robert Newcomer, Ph.D.

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Section 9342 of P.L. 99-509, the Omnibus Budget Reconciliation Act of 1986, directed the Secretary to conduct demonstration projects to determine the effectiveness, cost, and impact of providing comprehensive services to Medicare beneficiaries who are victims of Alzheimer's disease or related disorders. The legislation specified that the project shall be conducted over a period of 3 years, and that sites must be geographically diverse, located in States with a high proportion of Medicare beneficiaries, and in areas readily accessible to a significant number of beneficiaries. The legislation authorized the expenditure of up to $40 million from the Medicare Part B Trust Fund for the demonstration.

HCFA was assisted in designing and implementing the demonstration during the period September 1987 through June 1989 by Mathematica Policy Research, Inc., under a contract with HCFA. Two models of care are being studied under this project. Both provide case management, homemaker/personal care services, adult day care, and education and counseling for family caregivers. Case management activities include assessment, care planning, service arrangement, and patient monitoring. The two models vary by their monthly expenditure caps and the intensity of their case management. Eight demonstration sites were selected through a competitive process during 1988. The demonstration sites are:

Monroe County Long Term Care Program, Inc.
Rochester, New York

Carle Clinic
Urbana, Illinois

Northeast Community Mental Health Center
Memphis, Tennessee

Good Samaritan Hospital and Medical Center
Portland, Oregon

Cincinnati Area Senior Services, Inc.
Cincinnati, Ohio

Wood County Senior Citizens Association
Parkersburg, West Virginia

The Wilder Foundation
Minneapolis, Minnesota

Miami Jewish Home and Hospital
Miami, Florida

After an initial site planning and development period that began in May 1989, the demonstration sites began furnishing services to clients in December 1989. The sites are expected to serve more than 2,000 clients during the demonstration, with an equal number of eligible individual assigned to a control group.

In September 1989, HCFA awarded this contract to the University of California San Francisco to perform an independent evaluation of the demonstration and to provide training and technical assistance to the sites.

New Jersey Respite Care Pilot Project

Period: July 1988-September 1990
Total Funding: Waivers only
Grantee: New Jersey Department of Human Services
222 South Warren Street
Trenton, New Jersey 08625
Investigator: William Ditto

The New Jersey Respite Care Pilot Project was implemented in 1988 to help individuals care for elderly and disabled family members who are at risk of institutionalization by providing services and support needed by both care-recipients and caregivers. The purpose of the study is to determine the extent to which the provision of respite care services will delay or avert institutional placement and enhance and sustain the role of the family in providing long term care services. All of New Jersey's 21 counties are participating in the program. The respite care services provided under this project include short-term and intermittent companion services; homemaker, home health aides, and personal care services; adult day care; and inpatient respite in a hospital or nursing home. Services are available on a planned or emergency basis. In addition to these services, peer support, training, and counseling is provided to family caregivers.

HCFA originally was directed to approve this project by the Omnibus Budget Reconciliation Act of 1986. New Jersey did not implement the project after the passage of the original authorizing legislation because of a provision that required all participants to be Medicaid-eligible. The project's eligibility criteria were later amended by the Omnibus Budget Reconciliation Act of 1987 to provide authorisation for the program to include a non-Medicaid population, and the program began on July 1, 1988. During its first year, respite care services were provided to over 1,000 elderly or disabled clients and their families. The project is scheduled to end in September 1990.

In compliance with one of the requirements of the legislation, the State has arranged for an independent evaluation of the project to be conducted by the Center for Health Policy and Aging Research at Rutgers University. The final report is expected in early 1991.

HHA Prospective Payment Demonstration

Period: December 1983-December 1989
Total Funding: $ 2,839,501
Contractor: Abt Associates, Inc.
55 Wheeler Street
Boston, Massachusetts 06115
Investigator: Henry Goldberg

The purpose of this project is to develop and test alternative methods of paying HHAs on a prospective basis for services furnished under the Medicare program. The demonstration will enable HCFA to evaluate the effects of various methods of prospective payment on health care expenditures, quality of home health care, and home health agency operations.

In response to section 4027 of the Omnibus Budget Reconciliation Act of 1987, which directs HCFA to conduct a demonstration of prospective payment for HHA, Abt Associates is working with HCFA to develop a project design and to assist HCFA in implementing the demonstration. At this time, HCFA and Abt are finalising details of the proposed payment methods that will be tested. As part of this effort, Abt is also performing analysis of HHA plans of treatment, cost reports, and Medicare claims to provide HCFA with information about length of home health episodes and the relationship between patient characteristics and resource use. The operations phase of the demonstration is expected to begin in mid-1989.

The demonstration will test two prospective payment approaches - payments per visit by type of discipline and payments per episode of Medicare-covered home health care. Each HHA's payment rates will be based on its own Medicare allowable costs in the 12-month period prior to the HHA entering the demonstration. The study design calls for recruitment of 100 HHAs from five States (California, Florida, Illinois, Massachusetts, Texas) to participate voluntary in the demonstration. HHAs that agree to participate in the demonstration will be randomly assigned to one of three groups - i.e., to one of the two payment methods or to a control group that continues to be reimbursed in accordance with the current retrospective cost system. In order to assure that the incentives of prospective payment do not lead to reductions in the quality of home health care or in access to necessary and appropriate services, Peer Review Organizations in the five demonstration States will conduct ongoing quality assurance reviews of a sample of patient records from the participating HHAs. HCFA will award a contract in 1990 for an independent evaluation of the demonstration.

Design of a Demonstration of Medicare Payment for Community Nursing Organizations

Period: August 1988-December 1989
Total Funding: $ 196,109
Awardee The People-to-People Health Foundation
(Project HOPE)
2 Wisconsin Circle, Suite 500
Chevy Chase, Maryland 20815
Investigator: Burton Dunlop, Ph.D.

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Section 4079 of the Omnibus Budget Reconciliation Act of 1987 directs the Secretary to conduct a demonstration testing Medicare reimbursement on a capitated basis for services furnished by Community Nursing Organizations (CNOs). Project HOPE is assisting HCFA with the design of the demonstration. Tasks involved in this development effort include developing the eligibility standards for CNOs, the methodology for calculating the capitated payment rates, a research design and evaluation strategy for the demonstration, site selection criteria, quality assurance mechanisms, and marketing strategies for the sites. Development activities are still underway. Implementation of the demonstration will begin in 1990 after completion of these activities.

Prior and Concurrent Authorization Demonstrations

Period: September 1987-July 1992
Total Funding: $598,000
Contractor: Lewin/ICF
1090 Vermont Ave.
Washington, D.C. 20005
Investigator: Barbara Manard, Ph.D.

Section 9305 of P.L. 99-509, the Omnibus Budget Reconciliation Act of 1986, requires the Secretary of Health and Human Services to conduct demonstration projects concerning prior and concurrent authorization for post-hospital extended care services and home health services furnished under Part A or Part B of title XVIII. This legislation responds to concerns expressed by HHAs and SNFs that under the current system of Medicare payment they cannot adequately predict what services Medicare fiscal intermediaries (FIs) will deny as non-covered. It is hypothesized that prior authorization and concurrent authorization payment approaches will reduce the number of services denied without increasing Medicare expenditures. Under prior authorization, providers submit treatment plans to FI's for review prior to the start of care; under concurrent authorization, plans of treatment are submitted when care begins. In both approaches, the provider receives notification from the FI about how many services will be covered. This provides greater certainty about coverage and payment before most services are given. The law required an evaluation of the demonstrations that must address impacts on (1) administrative and program cost; (2) access and availability of post-hospital services and timeliness of hospital discharges; and (3) the accuracy and cost savings of payment determinations and rates of claims denials compared with the current system.

In July 1987, HCFA implemented home health concurrent authorization pilot projects in Illinois and in all States in HCFA's Region VII (Dallas). Lewin/ICF conducted an evaluation of this pilot project; the evaluation was completed in 1989 and a report describing the results was submitted to HCFA. HCFA has prepared a draft Report to Congress based on this report. Lewin/ICF also designed and implemented a separate demonstration of prior and concurrent authorization for SNF services. This demonstration began operations in September 1989. Lewin/ICF will perform an evaluation of this project as well.

Social Health Maintenance Organization

Period: September 1985-November 1990
Total Funding: $ 3,547,934
Contractor: University of California San Francisco
Aging Health Policy Center
San Francisco, California 94143
Investigator: Robert Newcomer, Ph.D. and Charlene Harrington, Ph.D.

The social health maintenance organization (S/HMO) seeks to enroll, voluntarily, persons 65 years of age or over in an innovative prepaid program that integrates medical, social, and long term care delivery systems. The S/HMO merges the health maintenance organization concepts of capitation financing and provider risk-sharing developed by HCFA under its Medicare capitation and competition demonstrations with the case management and support services concepts underlying Department of Health and Human Services (DHHS)- sponsored long term care demonstrations serving the chronically ill aged. Evaluation results will be used by HCFA and DHHS to assess whether the S/HMO concept should be fostered through changes in prepaid Medicare contracting regulations.

This contract was awarded in September 1985. An interim report was forwarded to Congress August 15, 1988. The data collection phase has been completed. Data analysis will be completed, and the final report written by November 1990.

Design, Implementation, and Evaluation of a Prospective Case-Mix System for Nursing Homes in Massachusetts

Period:	August 1986-December 1989
Total Funding:	$ 362,312
Awardee:	Massachusetts Department of Public Welfare Medical Assistance Division 600 Washington Street Boston, Massachusetts 02116
Investigator:	Susan Flanagan, M.P.H.

This project will design, implement, and evaluate a prospective case-mix system for a random sample of nursing homes in Massachusetts. This payment system will develop and test incentives for these nursing homes to admit and treat heavy-care patients while minimizing declines in quality of care. Experimental facilities will be compared with facilities that will continue to be reimbursed under the present system. A minimum of 18 experimental and 16 control homes will participate. The system will modify four of seven components of the nursing home reimbursement system currently used in the State. For demonstration facilities, nursing services payment will be case-mix adjusted using "management minutes." Incentives to admit and treat heavy-care patients will be used to further modify the nursing cost center. Various financial incentives will also be used to reduce other "controllable" operating costs.

The cooperative agreement was awarded in August 1986. During the first 2 years, project staff finalized aspects of the proposed payment system, assigned volunteer nursing homes to the experimental and control groups, and improved their quality-assurance mechanisms. Implementation of the case-mix system commenced on October 3, 1988 for 1 experimental year. Development of quality assurance indicators using this case-mix data base is in progress during the implementation year. Statewide implementation will be evaluated based on the demonstration results. The demonstration ends December 31, 1989. Evaluation of the demonstration will begin January 1990. A final report is expected in November 1990.

Texas Nursing Home Case-Mix Demonstration

Period:	September 1987-September 1991
Total Funding:	$ 371,873
Awardee:	State of Texas Department of Human Services P.O. Box 2960 (MC-234-E) Austin, Texas 78769
Investigator:	Pam Coleman

The Texas Department of Human Services will conduct a 3-year demonstration to implement and evaluate a prospective case-mix payment system. The payment system is based on a HCFA-sponsored feasibility study. The major Medicaid objectives of the project are: to match payment rates to resident need; to promote the admission of heavy-care patients to nursing homes; to provide incentives to improve quality of care; to improve management practices; and to demonstrate administrative feasibility of the new system. The objective for Medicare is the development and pilot testing of the administrative processes for implementing Medicare PPS based on a resource utilization group (RUG) system in coordination with Medicaid case-mix systems.

The State will use a quasi-experimental design for the Medicare pilot test to compare the effect of introducing case-mix payment in an experimental catchment area versus continuing the cost-based system in a control catchment area. The State will use a pre-post design for the Medicaid system. The case-mix methodology is based on a review of six different methods in which the New York RUG's II system explained the greatest variance of resource use. The proposed case-mix index has major

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elements of the RUG's II system and some of the system used in Minnesota. The Texas Index of Level of Effort (TILE) uses four clinical groups to form clusters and develops sub-groups using an ADL scale. The index that will be used for the classification of Medicare patients is the RUG-T18 developed by Brant Fries and Don Schneider. RUG-T18 uses the same clinical groups and ADL scale that are used in the New York RUGs-II system. The difference occurs in the expanded rehabilitation groups for Medicare patients. Two third-party evaluations will be used, one of data reliability and a second of the validity of their data analyses methods.

During the first year, the TILE and RUG-T18 indexes have been reviewed for compatibility. The RUG-T18 classification was reviewed and operationalized to match the HCFA Medicare coverage guidelines published in 1987. Cost analysis of both national and State samples of Medicareproviders were performed to arrive at baseline costs for calculating the rates for the RUG-T18 groups.

The Texas client assessment, review, and evaluation instrument has been reviewed and revised. It was pilot tested in the Austin area and achieved a high reliability score on case-mix variables. This instrument contains all the rate setting variables for both Medicare and Medicaid. The Texas utilization review process will expand to include more frequent reviews for new admissions, prior authorizations of Medicare stays, classification of individual patients into RUG-T18 groups. The Medicaid payment system became operational in April 1989 and the Medicare demonstration is scheduled to begin in April 1990.

Case-Managed Medical Care for Nursing Home Patients

Period: July 1983-March 1990
Grantee: Massachusetts Department of Public Welfare
180 Tremont Street
Boston, Massachusetts 02111
Investigator: Lois Simon

HCFA granted Medicare and Medicaid waivers to the Massachusetts Department of Public Welfare to permit fee-for-service reimbursement for the provision of medical services by physician-supervised nurse practitioners/physician assistants (NP/PA) for residents of nursing homes. This permits increased medical monitoring that is expected to generate cost savings as a result of fewer hospital admissions and outpatient visits. Providers are responsible for managing and monitoring the health care and medical condition of all enrollees to assure that the primary care needs of nursing home patients are met in a timely fashion, often without resorting to the hospital emergency room. Initial physical exams, medical evaluation, and re-evaluations are being performed by the NP/PA in the nursing home. The NP/PA operates under written protocols that describe the common medical problems to be encountered and appropriate evaluation and treatment procedures. The supervising physician reviews and countersigns the NP/PA's evaluation and prescriptions. The physician is also consulted in any unusual situation or emergency.

The Rand Corporation, as part of the Research Center Cooperative Agreement with HCFA, is evaluating this project, focusing on the project's impact on the use and cost of nursing home and hospital services. This evaluation relies primarily on Medicare and Medicaid claims data. The Pew Foundation has awarded a grant to the University of Minnesota to assess the project's impact on quality of care. Section 9413 of Public Law 99-509, the Omnibus Budget Reconciliation Act of 1986, mandated the continuation of this project. Section 6114 of the Ominibus Budget Reconciliation Act of 1989 will provide Medicare coverage of this type of service effectivive April 1990.

On Lok's Risk-Based Community Care Organization for Dependent Adults

Period: November 1983-Indefinitely
Grantees: On Lok Senior Health Services
1441 Powell Street
San Francisco, California 94133

California Department of Health Services
714-744 P Street
Sacramento, California 95814
Investigator: Marie Louise Ansak

In response to the congressional mandate of section 603(c)(1) and (2) of Public Law 98-21, the Social Security Amendments of 1983, HCFA granted Medicare waivers to the On Lok Senior Health Services and Medicaid waivers to the California Department of Health Services. Together these waivers permit On Lok to implement an at-risk, capitated payment demonstration in which more than 300 frail elderly persons, certified by the Department of Health Services for institutionalization in a SNF, are provided a comprehensive array of health and health-related services in the community. The current demonstration maintains On Lok's comprehensive community-based program but has modified its financial base and reimbursement mechanism. All services are paid for by a predetermined capitated rate from both Medicare and Medicaid (Medi-Cal). The Medicare rate is based on the average per capita cost for the San Francisco County Medicare population. The Medi-Cal rate is based on the State's computation of current costs for similar Medi-Cal recipients using the formula for prepaid health plans. Individual participants may be required to make copayments, spend-down income, or divest assets, based on their financial status and eligibility for either or both of the programs. On Lok has accepted total risk beyond the capitated rates of both Medicare and Medi-Cal with the exception of the Medicare payment for end stage renal disease. The demonstration provides service funding only under the waivers. The research and development activities are funded through private foundations.

Section 9220 of the Consolidated Omnibus Budget Reconciliation Act of 1985 has extended On Lok's Risk-Based Community Care Organization for Dependent Adults indefinitely, subject to the terms and conditions in effect as of July 1, 1985, except that requirements relating to data collection and evaluation do not apply.

The Use of Medicaid Reimbursement Data in the Nursing Home Quality Assurance Process

Period:	June 1988 - June 1990
Total Funding:	$132,930.00
Awardee:	Center for Health Systems Research and Analysis University of Wisconsin-Madison Room 300 Infirmary, 1300 University Avenue Madison, Wisconsin 53706
Investigator:	David Zimmerman, Ph.D.

The purpose of this project is to assess the feasibility of using Medicaid reimbursement data to target facilities and residents in the nursing home quality assurance survey process. Medicaid reimbursement data appear to hold considerable promise in helping target facilities for more intensive review, identifying specific care areas where deficient care may be present, and identifying individual residents for more detailed review. Information on medication use, sentinal health events, and other indicators can be provided to surveyors in preparation for the field survey. The information can also be used to determine whether problems have recurred after the survey and follow-up visits.

The objectives of the project are: (1) to convert reimbursement data into specific Quality of Care Indicators (QCIs), particularly with respect to drug related measures and medical outcomes; (2) to identify the conditions, standards, and elements in the Federal regulations for which the use of QCIs has the greatest potential benefit; (3) to develop and demonstrate in one State (Wisconsin) the procedures for providing QCIs to survey staffs; (4) to assess the potential for implementing the system in other States; (5) to determine the implications of the proposed HCFA nursing home regulations and the 1987 Omnibus Budget Reconciliation Act provisions for the use of reimbursement data in the quality assurance process; and (6) to design an expanded demonstration of the use of QCIs in the survey process.

Fifteen preliminary QCIs have been developed and are currently being reviewed by project staff and the advisory panel. The QCIs have been linked to specific conditions, standards, and elements within the existing Federal regulations, and proposed new regulations are being reviewed to determine their relationship with the QCIs. Deficiencies and QCIs in Wisconsin for the period August 1987-1988 are being analyzed to determine the baseline relationship between the two measures. Preliminary discussions

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with survey staff have been held to develop the system for conveying QCI information to the surveyors in a systematic way. Finally, a survey of State Medicaid reimbursement and quality assurance officials is being designed to identify which States may hold the greatest potential for the use of Medicaid data in the survey process.

The Development of Long Term Care Reform Strategy for New York's Office of Mental Retardation and Developmental Disabilities

Period: June 1988-June 1990
TotalFunding: $115,581
Awardee: New York State Department of Social Services
Division of Medical Assistance
40 North Pearl Street
Albany, New York 12243
Investigator: Howard Gold

The New York Office of Mental Retardation and Developmental Disabilities will conduct a 2-year project to develop a comprehensive plan and waiver application that would reform the financing, regulation, and service delivery of the Mental Retardation (MR)/Developmental Disabilities system in three districts that cover eight New York counties. The State sees the demonstration as the first step toward statewide implementation. The objectives are to: 1) develop a financing system that will improve services to this population by expanding the number and types of people to be served and the types of services to be provided; 2) change the manner in which quality of care is assured; and 3) constrain growth in Federal expenditures for these services. Waivers would alter the Medicaid basis of payment, revise the State Medicaid plan requirements, change how Medicaid funds can be used, and implement revised quality assurance regulations. The demonstration will test an alternative financing approach that approximates recently formulated departmental policy directions as developed by the Department of Health and Human Services Working Groups on ICFs/MR. The project would represent a major test of reform in the delivery of services for persons who are developmentally disabled.

Both National and State level advisory panels have been convened, and the development of issue papers is underway.

The Multi-State Nursing Home Case-Mix and Quality Demonstration

Period: June 1989 - June 1993
Funding: $1,000,000
Awardee: State Medicaid Agencies in Kansas,
Maine, Mississippi, and South Dakota

This project builds upon past and current initiatives with case-mix payment and quality assurance. It will be a 4-year demonstration to design, implement, and evaluate a combined Medicare and Medicaid system in five States. The purpose of the demonstration is to test a resident information system with variables for classifying residents into homogeneous RUGS for equitable payment and for quality monitoring of outcomes adjusted for case mix. The new minimum data set for resident assessment will be used for both payment classification and quality monitoring systems. This information will be computerized, audited, and submitted as part of the billing documentation. It will be used to develop case mix adjusted outcome and process norms across the demonstration States. This system also will be used to trigger early quality reviews by State staff and provide the regular survey teams with information on potential problems in nursing facilities. It will have three phases: 1) systems development and design; 2) systems implementation and monitoring; and 3) evaluation. There will be 18 months of developmental work before the Medicare/Medicaid classification and payment system will be ready for implementation in the demonstration States.

The project has just started, the States have begun work on Phase I activities and will conduct their first data collection in spring 1990.

Long Term Care Case Mix and Quality Technical Design Project

Period: September 15, 1989-September 14, 1991
Funding: $997,887
Awardee: The Circle, Inc.
8201 Greensboro Drive, Suite 600
McLean, Virginia 22102
Investigator: Bob Burke, Ph.D.

This 2-year contract will support the design and early implementation phase of the Multi-State Nursing Home Case-Mix and Quality Demonstration. The first step will be to refine the data collection process creating consistent, reliable, and valid measurement of resident characteristics and staff time use across the four demonstration States (Kansas, Maine, Mississippi, and South Dakota). The demonstration will involve approximately 50,000 residents in 800 facilities at any one time. The second step will be to refine a resource utilization classification system that will apply to both Medicare and Medicaid residents in nursing facilities (SNFs and ICFs) across States. This system must be able to account for over 42 percent of the staff time variance in each of the several States. It must have natural breaks in the groups between residents who are expected to be short stayers vs. long stayers and between residents requiring heavy technical nursing vs. residents with less technical needs. A prospective case-mix payment system to be used across the States for Medicare-covered stays will be developed using the common classification system. In addition, analyses comparing outcomes under different circumstances will be conducted. A national advisory group will be tasked to recommend the outcomes that are most promising for use in a quality monitoring system and to assist in the design of the quality monitoring system to be used during the operation phase of the demonstration.

New York State Integrated Quality Assurance System for Residential Health Care Facilities: The Next Step After Case-Mix Reimbursement

Period: August 1986-October 1990
Total Funding: $ 597,695
Awardee: New York State Department of
Social Services
40 North Pearl Street
Albany, New York 12243
Investigator: Don Schnieder, Ph.D.

The objectives of the New York State Quality Assurance System (NYQAS) are to link data from the case-mix reimbursement system for use in the quality assurance system and to integrate the quality assurance processes of survey/certification, inspection of care, and utilization review. The State recently implemented a case-mix payment system for residential health care facilities for which all patients are assessed at least biannually. The resulting data on patient characteristics are audited and entered on a client-specific data base that can be utilized to target quality assurance activities toward facilities that:

- Have staffing patterns that seem inappropriate to needs of patients.
- Have excessive numbers of patients with clinical outcomes that indicate possible deficiencies in the quality of care.
- Have unexpected negative outcomes from one review to the next.

External outcome standards, survey and certification, inspection of care, and utilization review activities will be integrated into a single, patient-centered process. The use of the case-mix data base will serve to focus reviewer energies on problem facilities. The ability to routinely track significant or potentially significant deteriorations in patient care will trigger off-cycle surveys. Facilities identified as having few or no problems will be targeted for abbreviated surveys.

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The State has completed the NYQAS design has designed a training program for State surveyors on the use of the new protocols and procedures. The training began October 1988 and NYQAS was implemented in November 1988. Administrative waivers permit sampling of resident review (as opposed to 100 percent review), a survey cycle that averages 12 months (as opposed to 12 months for all homes), and the alignment of utilization review with case-mix assessment intervals.

FUTURE DIRECTIONS FOR LONG TERM CARE

During 1989, HCFA devoted substantial staff resources on the further development of demonstrations to test the cost-effectiveness of prospective payment systems for nursing homes and the development of quality measures to improve the quality of care in nursing homes and HHAs.

We will continue to test alternative financing schemes for long term care services, including patient-related or case-mix based prospective payment for SNF and ICF levels of care. Implementation of a demonstration of prospective payment methods for Medicare home health services will take place in 1990. We also intend to test the effectiveness of innovative State, local, and private programs to promote home care by the family or by other community support arrangements, such as in-home or other support services (adult day care, adult foster care, or shared housing), which substitute for or deter the use of institutional care for persons in need of long term care services. These efforts will include implementation of a large-scale demonstration directed at victims of Alzheimer's disease and related disorders. At the same time, we will continue to develop and test new approaches to more accurately "target" home health and community-based care in order to identify groups for whom reconfiguration of current service models can be cost-effective.

We also will develop and test outcomes of quality for nursing home and home health services and the applicability of using payment generated data to monitor quality. In this light, we will continue to develop a multi-State demonstration integrating patient assessment for a case-mix PPS for nursing homes with the quality assurance process for these providers.

Another very important area that will continue to be explored is alternative financing mechanisms for long term care. Although the majority of the elderly are covered by both Medicare and supplemental insurance, a large portion of long term care services remain uncovered. Medicaid covers long term nursing care, but only after the elderly individuals have depleted their resources. Research is continuing that will identify the sources of financing for long term care at various points throughout institutionalization. This research will further examine characteristics of individuals who come to rely upon Medicaid for payment for their care. By identifying the risks associated with nursing home use, we hope to be able to propose improved methods of paying for this care. One alternative being studied as a solution for some of the elderly's problems in financing long term care is life care centers. Other ORD financing research continues to examine various States' reimbursement of long term care in order to assess the feasibility of recommending policy changes, e.g., prospective payment for SNF care.

Essential to the development of future long term care policies is the support for data collection and data analyses from projects that gather detailed information from representative national samples or other large segments of the elderly population. Research is continuing on the estimated future acute and long term care utilization based on information from available surveys on the morbidity, disability, and mortality of different birth cohorts. Data from the 1982 and 1984 Long Term Care surveys are being analyzed and plans continue for the 1989 survey. Data on the Medicaid program continue to be available on a person-level basis for some States from the Tape-to-Tape project.

OFFICE OF HUMAN DEVELOPMENT SERVICES: ADMINISTRATION ON DEVELOPMENTAL DISABILITIES

On June 27, 1989, the Administration on Developmental Disabilities and the Administration on Aging signed a Memorandum of Understanding to improve the coordination of programs administered by the two administrations which relate to the welfare of older persons with developmental disabilities.

Under the agreement, AoA and ADD will jointly develop and implement activities to:

—Promote better understanding between the National Network on Aging and the Developmental Disabilities Network of programs serving older persons with disabilities.

—Improve services to older person with developmental disabilities.

—Demonstrate, at the national level, a commitment between AoA and ADD to improve services to older persons with developmental disabilities.

The new agreement provides a framework for AoA and ADD to work together to promote the independence, productivity and integration of older persons with developmental disabilities into the mainstream of society.

Aging and Developmental Disabilities Projects

"ADD-TIP" NATIONAL IMPLEMENTATION PROJECT

Grantee: Institute for the Study of Developmental Disabilities, Indiana University.

Project Director: Barbara Hawkins, Re. D.—(812) 855-6508.

Project Period: 9/30/88-9/29/90, FY'88-$96,565, FY'89-$91,000.

The "ADD-TIP" National Implementation Project has as its goal the immediate and long-term widespread national training of manpower across the different service sectors that serve aging persons with developmental disabilities in order to improve service to and planning for this population. About 300 critical service providers and administrators in Indiana will be trained using a state-of-the-art training package and field-tested training methodologies. A flexible inservice training model will evolve which can be used across the aging and developmental disabilities service sectors. About twenty master trainers will receive experience in such training and also in the training of older trainers, resulting in an additional cadre of about 100 national trainers; this national network of trainers will be able to undertake all aspects of future training. Important databases will be established by rigorous evaluation techniques to assess actual manpower impact due to project implementation. Promotion and dissemination of project products and findings to state, regional and national organizations will involve numerous publications and presentations.

PROGRAM GOALS AND OBJECTIVES FOR THE UNIVERSITY OF MIAMI CENTER ON AGING AND DEVELOPMENTAL DISABILITIES

Grantee: Mailman Center for Child Development, University of Miami School of Medicine.

Project Directors: David Ross Dickson, Ph.D. and Meridith Miller, Ph.D.—(305) 326-1043.

Project Period: 9/30/88-9/29/90, FY'88-$77,500, FY'89-$91,000.

The UM/CADD will focus on training professionals, policy makers, providers and consumers in both the aging services network and the DD service network to improve coordination and quality of service delivery in these two networks. Community organizing and systemic change activities will be an integral part of the CADD's work plan. The CADD has six goals: To conduct training for both networks, to create and nurture a community consortium first in Dade County and then in Broward County, to build public awareness through the media, to conduct research in needs assessment for the older DD population, to stimulate systemic changes in the administrative, policy and program approaches affecting the aging DD population in Dade County and the State of Florida, and to stimulate innovative programs and exemplary service models for replication in both networks.

Project outcomes will include training sessions designed for three distinct audiences (providers/professionals, policy makers/administrators, and consumers); creation of at least two community consortia; a quarterly newsletter; media coverage; an annual policy workshop; a needs assessment survey of older DD residents of Dade County; a survey of training needs of providers in the aging and DD networks, and development of a resource center for students, consumers and providers.

IMPROVING SERVICES TO ELDERLY PEOPLE WHO ARE DEVELOPMENTALLY DISABLED: TRAINING, SERVICE, AND DISSEMINATION

Grantee: Shriver Center, University Affiliated Program, Waltham, MA.
Project Director: Harry Beyer, J.D.—(617) 642-0101.
Project Period: 9/30/88-9/29/90, FY'88-$77,500, FY'89-$93,999.

The Shriver Center Aging Project includes five primary activities—pre-service training of graduate students, development, refinement and implementation of service models, in-service training and technical assistance to practicing professionals and paraprofessionals, evaluation of impact service models, and identification of service gaps. Unique aspects of the project include an emphasis on the evaluation of non-medical problems such as housing needs, leisure-time use, spiritual needs, adjustment social changes associated with aging, and legal needs. Trainee composition reflects the evaluation orientation and includes students from programs such as law, leisure studies, social work, and the ministry. Particular emphasis is being given to the development of curriculum addressing legal and ethical issues.

THE UMKC INTERDISCIPLINARY TRAINING CENTER ON GERONTOLOGY AND DEVELOPMENTAL DISABILITIES

Grantee: University Affiliate Program for Developmental Disabilities, University of Missouri at Kansas.
Project Director: Phyllis Kultgen, Ph.D.—(816) 276-1770.
Project Period: 9/30/88-9/29/90, FY'88-$77,500, FY'89-$91,000.

The purpose of this project is to establish an Inter-disciplinary Training Center on Gerontology and Developmental Disabilities at the University of Missouri-Kansas City. This center represents a joint effort among the UMKC University Affiliated Program (UAP), the UMKC Center on Aging Studies, selected University units, and a strong consortia of provider agencies. Significant collaboration and support from the State Division of Developmental Disabilities, the Division of Aging, and other UAPs across the country has been received. The primary outcomes of this long-term project will be:

(1) An Interdisciplinary University Based Training Program. This will include infusion of knowledge on developmental disabilities and aging in courses of both the social sciences and allied health disciplines. In addition, an interdisciplinary track on aging and developmental disabilities will be provided as a 15 hour academic certificate. Activities at the University level will be jointly sponsored and conducted by both the UAP staff and the Center on Aging Studies staff.

(2) An Interdisciplinary Outreach Training Program. This program will be established for service providers and state agency staff. The unique aspect of this outreach training program is that it will build on the capacity and expertise within the system to jointly train providers.

(3) The Establishment of Exemplary Service Sites to Facilitate Both Preservice and Inservice Training. Plans have been generated to develop six exemplary service sites. These sites can be used for student placement as well as information dissemination and technical assistance activities.

The new interdisciplinary Ph.D. program, recently established at UMKC, supports the efforts of the above goals and outcomes.

INTERDISCIPLINARY TRAINING FOR PROFESSIONAL AND PARAPROFESSIONAL PERSONNEL: A COLLABORATIVE APPROACH TO IMPROVE SERVICES FOR SENIORS WITH DEVELOPMENTAL DISABILITIES IN RURAL AREAS

Grantee: Montana University Affiliated Program, University of Montana.
Project Director: Philip Witteklend, M.S.—(406) 243-5467.
Project Period: 9/30/88-9/29/90, FY'88-$77,500, FY'89-$91,000.

The Montana University Affiliated Program (MUAP) proposes to train professional and paraprofessional direct care providers in the areas of aging and developmental disabilities with particular attention being given to the provision of services in rural/remote areas. A concurrent goal is to collaborate with developmental disabilities and generic aging networks throughout Montana and neighboring states to share existing resources and expertise to improve the services for seniors with developmental disabilities. Objectives for this project are directed toward providing training and collaboration activities in both aging and developmental disabilities systems throughout Montana and neighboring states, relevant to improving the quality of life for seniors who are developmentally disabled:

(1) Coordinate statewide training efforts with agencies providing services for seniors.

(2) Provide preservice training in the combined areas of aging and developmental disabilities.

(3) Provide inservice training for professional and paraprofessional direct care personnel at all levels of both aging and developmental disabilities networks.

(4) Provide education for citizens to increase awareness of both aging and developmental disabilities.

(5) Conduct a multi-state conference to disseminate knowledge and to obtain input for training and resource development.

(6) Provide consulting/training to neighboring states of Wyoming, Idaho, and North Dakota.

(7) Disseminate project results and materials.

TRAINING PROGRAM IN AGING AND DEVELOPMENTAL DISABILITIES

Grantee: University of Rochester, University Affiliated Program.

Project Director: Jenny C. Overeynder, ACSW—(716) 275-2986.

Project Period: 9/30/88-9/29/90, FY'88-$77,500, FY'89-$91,000.

The Training Program in Aging and Developmental Disabilities in Western New York is a joint program of the University Affiliated Program for Developmental Disabilities and the Center on Aging of the University of Rochester Medical Center. It plans to expand existing and create new linkages between developmental disabilities, gerontology and geriatric educational systems in Rochester, Utica and Buffalo, New York, in order to offer preservice and continuing education in aging and developmental disabilities. Initially, efforts will be directed at collaborative training with local service providers, to provide immediate impact on delivery of direct and support services. Subsequently, short term preservice training on the undergraduate and graduate level will be delivered to impact on a broad spectrum of students. Finally, for a smaller number of advanced trainees, more intensive long-term educational experiences will be offered.

Objectives, in addition to establishing a program management structure are to develop a program faculty, collect curriculum materials, develop inservice and continuing education programs, develop preservice programs and sponsor regional workshops as well as an international conference. Expected outcomes include increased awareness, knowledge and skills for a large number of providers, policy makers, students and faculty through the establishment of a Regional Center. Specifically, it is anticipated that at least 15 persons will be identified who will teach various subjects related to this topic, that about 100 persons per year will participate in inservice educational series, and that about 200 students per year will receive instruction through undergraduate, graduate and certificate programs on the university level. Training models, an extensive library as well as a training data base will be made available.

AGING AND DEVELOPMENTAL DISABILITIES: CLINICAL ASSESSMENT, TRAINING, AND SERVICE

Grantee: Waisman Center UAF, University of Wisconsin.

Project Director: Gary B. Seltzer, Ph.D.—(608) 263-5245.

Project Period: 9/30/88-9/29/90, FY'88-$79,407, FY'89-$79.407.

The training grant has three goals: 1) to facilitate increased collaborative work on aging and developmental disabilities among the Waisman Center, the University of Wisconsin Institute on Aging, the Wisconsin Bureau on Aging, the Developmental Disabilities Office, the Wisconsin Bureau for Long-Term Support, and community-based service providers in Wisconsin; 2) to conduct training programs for professionals and paraprofessionals on aging and developmental disabilities; and 3) to develop the Waisman Clinic on Aging and Developmental Disabilities. The achievement of the first two of these goals will be accomplished through a series of training conferences and seminars for professionals, para professionals, faculty, and executives serving in the legislative, human services, or health systems and working in the fields of aging and/or developmental disabilities. During the first year of the grant, a statewide survey will be conducted of all agencies in Wisconsin that provide services to aging persons and/or persons with developmental disabilities. This survey is expected to provide a data base for training and collaboration among program planners, providers, and policy analysts.

The Waisman Clinic on Aging and Developmental Disabilities will be developed by the Center in conjunction with collaborating agencies. It will use a computer-assisted assessment approach and will develop model service protocols and cost data. Interdisciplinary training on aging and developmental disabilities will be conducted.

"A QUALITY OF LIFE/EXPRESSIVE ARTS/PHYSICAL FITNESS INNOVATIVE TRAINING SERVICE PROGRAM FOR DEVELOPMENTALLY DISABLED PERSONS IN N.E. GEORGIA SENIOR SITES"

Grantee: University of Georgia Division of Education for Exceptional Children.
Project Director: Claire B. Clements, Ed.D—(404) 542-3960.
Project Period: 9/30/88-9/29/90, FY'88-$87,114, FY'89-$117,735.

The purpose of the project is to demonstrate that old age for developmentally disabled persons can be a time of fulfilling activity and creativity. The project will develop, implement, research, and disseminate drama, art, dance, and fitness programs to improve these persons' quality of life and integration into the existing service system.

OFFICE OF HUMAN DEVELOPMENT SERVICES: TITLE XX SOCIAL SERVICES BLOCK GRANT PROGRAM

The major source of Federal funding for social services programs in the States is Title XX of the Social Security Act, the Social Services Block Grant (SSBG) program. The Omnibus Budget Reconciliation Act of 1981 (Public Law 97-35) amended Title XX to establish the SSBG program under which formula grants are made directly to the 50 States, the District of Columbia, and the eligible jurisdictions (Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands) for use in funding a variety of social services best suited to the needs of individuals and families residing within the State. Public Law 97-35 also permits States to transfer up to 10 percent of their block grant funds to other block grant programs for support of health services, health promotion and disease prevention activities, and low-income home energy assistance.

Under the SSBG, Federal funds are available without a matching requirement. In fiscal year 1989, a total of $2.7 billion was allotted to States. Within the specific limitations in the law, each State has the flexibility to determine what services will be provided, who is eligible to receive services, and how funds are distributed among the various services within the State. State and/or local Title XX agencies (i.e., county, city, regional offices) may provide these services directly or purchase them from qualified agencies and individuals.

A variety of social services directed at assisting aged persons to obtain or maintain a maximum level of self-care and independence may be provided under the SSBG. Such services include, but are not limited to: adult day care, adult foster care, protective services, health-related services, homemaker services, chore services, housing and home maintenance services, transportation, preparation and delivery of meals, senior centers, and other services that assist elderly persons to remain in their own homes or in community living situations. Services may also be offered which facilitate admission for institutional care when other forms of care are not appropriate.

Under the SSBG, States are not required to submit data that indicates the number of elderly recipients or the amount of expenditures provided to support specific services for the elderly. States are required, prior to the expenditure of funds under the SSBG, to prepare a report on the intended use of the funds including the information on the type of activities to be supported and the categories or characteristics of individuals to be served. States are also required to report annually on activities carried out under the SSBG. Beginning with fiscal year 1989, the annual report must include specific information on the numbers of children and adults receiving services, the amount spent in providing each service, the method by which services were provided, i.e., public or private agencies, and the criteria used in determining eligibility for each service.

Based on an analysis of pre-expenditure reports submitted by the States for fiscal year 1988, the list below indicates that number of States providing certain types of services to the aged under the SSBG.

Services	*Number* [1]
Home-Based Services [2]	45
Adult Protective and Emergency Services	34
Disabled Services	39
Health Related Services	22
Information and Referral	23
Transportation Services	30
Adult Day Care	23
Home Delivered/Congregate Meals	20
Adult Foster Care	12

Housing Services	10

[1] Includes 50 States, the District of Columbia, and the five eligible territories and insular areas.

[2] Includes homemaker, chore, home health, companionship, and home maintenance services.

In enabling the elderly to maintain independent living, most States provide Home-Based Services which frequently includes homemaker services, companion and/or chore services. Homemaker services may include assisting with food shopping, light housekeeping, and personal laundry. Companion services can be personal aid to, and/or supervision of aged persons who are unable to care for themselves without assistance. Chore services frequently involve performing home maintenance tasks and heavy housecleaning for the aged person who cannot perform these tasks.

As reflected above, 34 States currently provide Adult Protective and Emergency Services to persons generally 60 years of age and over. These services may consist of the identification, receipt, and investigation of complaints and reports of adult abuse. In addition, this service may involve providing counseling and assistance to stabilize a living arrangement. If appropriate, Adult Protective and Emergency Services may also include the provision of, or arranging for, home based care, day care, meal service, legal assistance, and other activities to protect the elderly.

Department of Health and Human Services
Administration on Aging
Fiscal Year 1989

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
ADMINISTRATION ON AGING
REPORT FOR FISCAL YEAR 1989

INTRODUCTION

This report describes the major activities of the Administration on Aging (AoA) in Fiscal Year 1989. Title II of the Older Americans Act of 1965 (the Act) established the Administration on Aging as the principal Federal agency for carrying out the provisions of the Act. The 1987 Amendments to the Act reaffirmed the responsibilities of AoA, State Agencies, and Area Agencies to assure that community systems serving older people are established, strengthened, and extended throughout the nation. Through the Amendments, Congress also reaffirmed the need for strong partnerships and for effective coordination on behalf of older people. Congressional action also underscored concern for the most vulnerable elderly and emphasized the need to assure that priority focus is continued on the establishment and improvement of comprehensive coordinated community based systems of service.

The Older Americans Act seeks to remove barriers to economic and personal independence for older persons and to assure the availability of appropriate services for those older persons in the greatest social or economic need. The provisions of the Act are implemented primarily through a national "network on aging" consisting of the Administration on Aging at the Federal level, State and Area Agencies on Aging established under Title III of the Act, and the agencies and organizations providing direct services at the community level. In FY 1989, Congress appropriated $ 748,196,000 to support programs and activities to implement the provisions of the Act, which are administered by AoA. This excludes $ 188,000 available for the Federal Council on Aging under the Older Americans Act appropriation. (See Appendix I for a summary of AoA's budget for FY 1989.)

This report is divided into five sections. Section I describes AoA's roles and functions. It highlights various activities undertaken by AoA, in partnership with other Federal agencies and private organizations, to launch new national initiatives and foster the coordination of Federal programs related to older persons. Section II provides an overview of the provisions of Title III of the Older Americans Act. It summarizes the principal activities of the network of State and Area Agencies on Aging in FY 1989. Section III describes the Title VI program of grants to Indian tribal organizations and the efforts of the Administration on Aging in assessing outreach to older Native Americans. Section IV presents a summary of AoA's FY 1989 discretionary activities under Title IV, and a description of the FY 1989 special activities and initiatives conducted by AoA designed to improve the capacity of State and local governments to provide quality long-term care for older persons. Section V describes AoA's evaluation activities conducted during FY 1989. A series of Appendices provide additional information on the subjects covered in the body of this report.

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SECTION I - THE ADMINISTRATION ON AGING

Role and Function of AoA

The Administration on Aging (AoA) is located in the Department of Health and Human Services (DHHS). The agency is headed by a Commissioner on Aging, who is appointed by the President with confirmation by the Senate and who reports directly to the Secretary. In April, 1989 Joyce Berry, Ph.D., was appointed Acting Commissioner on Aging following the acceptance of the previous Commissioner's resignation. AoA programs are administered through a Central Office located in Washington, D.C. and ten Regional Offices. Title II of the Older Americans Act, as amended, describes the basic roles and functions of AoA. Chief among these are to serve as an effective and visible advocate for older persons (including American Indian, Alaskan Native and Native Hawaiian Aging) within the Department and with other agencies and organizations at the national level and to administer the programs authorized by Congress under Titles III, IV, and VI of the Act.

AoA provides policy advice to the Secretary of Health and Human Services in matters affecting older Americans and information to other Federal agencies and to Congress on the characteristics, circumstances and needs of older persons. The Agency also reviews and comments on departmental policies and regulations concerning services which affect the health and general well-being of older persons.

During FY 1989, the Administration on Aging continued its aggressive efforts to assist vulnerable older persons and their families in finding appropriate help to maintain their independence within their own communities and to delay or prevent unnecessary institutionalization. AoA believes that these efforts can best be achieved by providing State and Area Agencies on Aging with the flexibility that allows them to strengthen existing local systems to make them more visible, easily accessible, and responsive to the needs of older Americans, particularly the most vulnerable.

The building and strengthening of coordinated community services systems for older persons and their families continued to be the overarching goal of efforts undertaken by AoA during FY 1989. AoA continues to work with State and Area Agencies on Aging to develop ways in which all available resource groups (i.e., public, private and voluntary, as well as dedicated individuals) can effectively work together to create comprehensive and responsive community systems dedicated to maintaining the independence of older Americans.

Toward this end, efforts continue to focus on strengthening the roles of State and Area Agencies on Aging to help enhance, but not replace, individual self-sufficiency, family caregiving, and other traditional forms of community support. AoA recognizes that the Area Agency on Aging is the key organization that can forge the most effective and efficient linkages between existing systems of services within each community. Therefore, AoA works with State and Area Agencies on Aging to strengthen efforts that will build a system of services that provide a continuum of care for older persons, tailored to meet the needs and circumstances of individual communities.

Goals for Fiscal Year 1990 and Beyond

While working during Fiscal Year 1989 to accomplish the annual objectives related to the enhancement of community-based systems of services for older persons nationwide, the Administration on Aging began a developmental process for the establishment of goals for Fiscal Year 1990 and beyond. The process has been characterized by continuing dialogue with advocacy and interest groups in the field of aging including discussions with State Directors on Aging, with Area Agency Directors, service providers, the academic community, the Federal Council on Aging and with representatives of the Leadership Council of Aging Organizations.

As a result of the process the Administration on Aging (AoA) has selected eight areas of major activity in which goals have been established for Fiscal Year 1990 and beyond. These areas are: (1) Public/Private Partnerships, (2) Older Persons as a Resource, (3) Strengthening the Family and Generational Bonding, (4) Prevention and Alternatives to Institutional Care, (5) Promotion and Enhancement of Effective Community Based Service Systems, (6) Targetting - Strategic Resource Allocation, (7) Manpower Development and (8) Preparing for the 21st Century - Challenges and Opportunities of an Aging Society. See Appendix VI for full Statement of Goals for 1990 and beyond.)

In the year 1990, the nation will celebrate the 25th Anniversary of the Older Americans Act of 1965. The Administration on Aging deems it important, as the nation approaches the last decade of the 1990's and the Silver Anniversary of the Older Americans Act, to expand the agency's goal efforts and to assist the society in addressing policy issues which will undoubtedly carry over through the 1990's and beyond, into the 21st Century. It is important that our society becomes focused on the need to build adequate capacity to respond to the dramatic increases in the older population during the next century.

AoA - A Visible and Effective Advocate

A major responsibility of the Administration on Aging is to provide leadership to other Federal agencies and to the several components of the national network on aging relative to their efforts on behalf of older persons. The Administration on Aging placed major emphasis on developing collaborative relationships with other Federal agencies to facilitate the development of methods to achieve a coordinated response to the needs, problems and concerns of older persons. Toward this end, AoA has developed and implemented a variety of special initiatives aimed at improving the quality of life for older persons. Examples of special initiatives undertaken during FY 1989 are described below under the Promotion and Enhancement of Effective Community-Based Service Systems Category and Health Category.

Aging Network Visibility Initiative

In an effort to promote network visibility, AoA continued the public education strategy to have public and private sector organizations print and distribute a generic booklet, "Where to Turn for Help for Older Persons". This booklet is aimed at linking middle-aged caregivers to resources and help for their older loved ones who live nearby or across the country. It answers some of the most frequently asked questions about finances, health, legal and community services for the elderly. The Administration on Aging continues to receive a positive response about the booklet from public and private organizations, as well as the general public. Since it was first published in 1986, over 448,800 copies of the booklet have been reprinted by 80 organizations and companies including Levi Strauss, Blue Cross/Blue Shield, General Electric, United Auto Workers and the House Select Committee on Aging. The Government Printing Office has sold a total of 29,020 copies to the public.

Community Achievement Award Initiative

The Administration on Aging implemented an initiative known as the Community Achievement Awards to recognize communities which have made significant progress in developing exemplary systems of services for older Americans. The awards are determined through a competitive process wherein each State is invited to nominate one of its communities for an award.

In July 1989, AoA honored ten communities with Community Achievement Awards in a highly publicized ceremony in Washington, DC. Awards were presented to communities in

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California, the District of Columbia, Illinois, Iowa, Montana, Nevada, New Mexico, North Carolina, South Dakota, and Wisconsin. Each State's Agency on Aging received a grant of up to $30,000 for post-award activities to encourage systems-enhancement in other communities throughout the State. These follow-up activities include developing resource brochures, producing video tapes or slides to publicize the award-winning system, and establishing Peer Counseling Teams to provide information and technical assistance to communities interested in enhancing their own systems of services for the elderly.

In addition, workshops, conferences, and training programs have been planned for a variety of organizations and individuals concerned with the elderly. The target groups include staff of Area Agencies on Aging, local elected and appointed leaders, members of professional associations, persons working with senior citizens, and seniors themselves.

The FY 89 initiative has generated much publicity in the award-winning communities and States. Wide media coverage has been reported, including feature articles in newspapers and newsletters, and televised press conferences and interviews of community officials. In addition, the communities have been honored through proclamations from State Governors and have received recognition at meetings and annual conferences of organizations concerned with aging issues.

AoA has developed a brochure which describes each of the award-winning communities. Copies of the brochure have been sent to each State to use in these promotional activities.

The Community Achievement Awards initiative is in its second year.

Low-Income Minority Elderly

The 1987 Amendments to the Older Americans Act require increased emphasis on meeting the needs of low-income minority elderly persons. The Administration on Aging has a major policy goal to enhance its commitment to develop and implement new strategies to more effectively target resources and programs on the needs of the most vulnerable older persons, with special emphasis on low-income minority elderly. We are confident that all segments of the national network of services for the elderly share our conviction that substantial improvement on this mandate can and must be achieved as a priority.

The Older Americans Act Amendments establish specific requirements for Area Agencies with respect to low-income minority individuals. Section 306(a)(5)(A) of the Act requires Area Plans to:

1. Provide assurances that preference will be given to providing services to older individuals with the greatest economic or social needs, with particular attention to low-income minority individuals;
2. Provide assurances that the Area Agency will include in agreements made with service providers a requirement that the provider will: a) specify how he intends to satisfy the service needs of low-income minority elders in the area served by the provider, and b) attempt to provide services to low-income minorities in at least the same proportion as the population of low-income older persons bears to the population of older individuals in the service area;
3. Identify the number of low-income minority older individuals in the planning and service area; and
4. Describe the methods used to satisfy the service needs of such minority elders.

States report a total of over 2 million low-income minority elders. Nearly one-third of these older persons are concentrated in the southeastern states of Georgia, Florida, North Carolina, and Alabama. Nation-wide, the largest numbers of low-income minority elders live in New York, Georgia, Texas, Florida, and California. The smallest populations of low-income minority older persons reside in New Hampshire, North Dakota, Idaho, and Nevada.

A wide variety of methods is used by States to satisfy the service needs of their low-income minority individuals. A high proportion of the States is actively involved in training and information dissemination, sometimes in languages other than English. Many States report increasing outreach and advocacy activities, working with national minority organizations, holding conferences, forming task forces, or altering their funding formulas to reach more low-income minority elders. Over half the States report targeting nutrition and senior sites and detailing minority action steps in their State Plans as important in their attempts to satisfy the service needs of this low-income minority elderly population. The Administration on Aging highlighted applications of these strategies and methods in a memorandum to States in Fiscal Year 1989.

Community and Migrant Health Centers

The Administration on Aging, in collaboration with the Health Resources and Services Administration (HRSA), completed a two phase initiative designed 1) to promote older persons having greater access to and participation in the primary care services of the Community and Migrant Health Centers (CMHC's) and, 2) to increase targetting of supportive services by AAA's. The approach was to forge stronger linkages between the two programs at all administrative and programmatic levels to ensure coordinated planning, integration of resources wherever possible, and the development of mutually supportive strategies at the State and local levels.

The Administration on Aging coordinated with the Health Resources and Services Administration in developing an evaluation of the linkages between the Community and Migrant Health Centers and the network of aging services. The goal of the evaluation, funded in HRSA, is to assess the initiative's impact, document exemplary practices of the community and migrant health centers for purposes of replication and document existing barriers preventing collaboration between the two programs. This project has been extended to enable the researchers to develop a set of policy and program recommendations for future directions.

Caregiving

Over the past few years, the public and private sectors have become increasingly aware of, and involved in, issues of caregiving that arise as a result of families, friends and neighbors supporting and providing assistance to an elderly individual. AoA has been working with both the public and private sectors to promote knowledge of caregiving and its corollary in the workplace, Eldercare.

AoA has collaborated with the Office of Personnel Management and the Department of Labor, among other Federal agencies to expand the existing knowledge base regarding Eldercare issues and caregiving in general. Extensive work is also being initiated with private sector organizations at both central and regional office levels. The private sector is recognizing Eldercare as a benefits issue and is initiating collaboration with local agencies operating under the auspices of the Older Americans Act.

The Administration on Aging Regional Offices have been successful in promoting strong public-private sector initiatives. They continue their efforts in:

1. promoting and supporting State efforts to implement caregiving initiatives in the public and private sectors;

2. developing options for public/private collaboration; and

3. helping to create options for business to initiate, such as accumulation of credit hours for caregiving, and banking pre-tax deductions for costs of adult day care and medical costs.

Older Volunteer Recognition Ceremony

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In celebration of Older Americans Month, AoA hosted with the American Association of Retired Persons and the May Department Stores Company, a ceremony and reception to honor older volunteers. The event, held on May 24, 1989, in the auditorium of the Wilbur J. Cohen Building, recognized one individual from each State whose dedication and service was representative of all of the older volunteers in the State. HHS Secretary Louis W. Sullivan presented a plaque to each State designee. Invited guests included representatives of Congressional committees and national organizations who work on issues affecting older people. There was extensive media coverage of the event.

Commissioner on Aging Roundtables

Many issues impact on the Older Americans Act programs. One mechanism utilized for discussion of these important issues was the convening of Roundtables with noted experts, representatives from national organizations, State and Area Agencies on Aging and service providers. These Roundtables provided an opportunity for dialogue, policy discussion and a mechanism for providing input into AoA policy deliberations.

The first Roundtable dealt with the issue of minority participation in Older Americans Act programs. The 1987 Amendments placed increased emphasis on serving those in greatest economic or social need, with particular attention to low-income minorities. Among the issues discussed were: 1) intrastate funding formulas; 2) hiring minority staff; 3) site selection; 4) training aging network staff; and 5) minority contracting. Invited, were four minority aging organizations: the National Caucus and Center on Black Aged, the Asociacion Nacional Pro Personas Mayores, the National Asian/Pacific Resource Center on Aging and the National Indian Council on Aging. Directors of State Units on Aging, an Area Agency on Aging, an aging service provider, representatives of the National Association of State Units on Aging and the National Association of Area Agencies on Aging and the National Minority Aging Resource Center were invited.

A second Roundtable dealt with the important issue of eldercare. Business and corporate communities have demonstrated a growing commitment to assist employees who serve as caregivers for older relatives. In a number of instances, private sector groups have asked State and Area Agencies on Aging to provide assistance. The issues addressed at this roundtable focussed on ways in which State and Area Agencies on Aging can work with the business and corporate communities. The issues discussed ranged from statutory prohibitions to the public purpose mission of area agencies. Invited were the Illinois and Ohio State Directors on Aging, two Area Agencies on Aging Directors from Texas and Oregon and the executive directors of the National Association of Area Agencies on Aging and the National Association of State Units on Aging.

Housing

Under the Older Americans Act, the Administration on Aging (AoA) collaborates with the Federal housing programs in the Department of Housing and Urban Development (HUD) and the Farmers Home Administration (FmHA) within the Department of Agriculture. AoA activities include exploration of possible interagency agreements, mutual participation in conferences and provision of materials, and data exchanges between the respective networks. During the past year, AoA provided assistance to HUD in identifying and recruiting housing counselors for training in the Home Equity Conversion (HEC) Demonstration Program. This HEC Demonstration Program will be explained further under the Title IV-B Research and Demonstration Projects of the Annual Report. The counterpart State and local agencies are encouraged to work together to provide opportunities for older citizens to have suitable housing alternatives which are affordable and which emphasize the need for maintaining a continuum of care for the elderly. AoA's regional office provided testimony before the U.S. Senate Budget Committee Hearing on congregate and supportive services in housing for the elderly in Atlanta, representing the Department of Health and Human Services at this Hearing. The Regional Office is currently planning a conference for February 1990 which will focus on "Aging in Place: Relating and Linking Congregate and Supportive Services in and to Housing for the Elderly".

Transportation

On October 24, 1986, the Secretaries of DHHS and DOT signed an agreement to facilitate effective and efficient coordination of specialized and human services transportation. Under this agreement AoA co-sponsored the development of a guidebook on "Best Practices in Specialized and Human Services Transportation Coordination". In December 1988, AoA and the Urban Mass Transportation Administration (UMTA) entered into an Interagency Agreement to support the collaborative efforts between DHHS and DOT. Under this agreement, AoA and UMTA provided funds to the States of Texas and Ohio for convening workshops designed to further the goal of improving the coordination of transportation service systems. The first workshop was held on July 26, 1989, in Austin, Texas, the second one was held on September 22, 1989, in Columbus, Ohio. Both workshops brought together representatives of both the aging and transportation networks to discuss methods of improving the coordination of transportation systems in the two States. The guidebook on "Best Practices in Specialized and Human Services Transportation Coordination" was used at the workshops. The products of the workshops are State "Action Plans" detailing the responsibilities and steps to be taken by the aging and transportation networks to improve the coordination of transportation service systems. These plans will be made available to all other States for replication in keeping with each individual State's priorities.

Employment

AoA conducted a discussion based on the Bureau of Labor Statistics report, Labor Market Problems of Older Workers. The report examines the extent of labor market problems of older men and women and documents the employment outcomes of those older persons who look for work following job loss or reentry into the labor market. Institutional impediments to employment, such as Social Security regulations, pension rules and policies, the market for part-time jobs and age discrimination, are also addressed. Representatives of the Leadership Council on Aging, DHHS, HDS Program Offices, and the general public were in attendance.

Supplemental Security Income (SSI), Food Stamp and Medicaid Outreach

The 1987 Amendments to the Older Americans Act require the Commissioner on Aging to analyze, compile, and distribute information about outreach activities targetted to older persons who may be eligible for, but are not receiving, SSI, Food Stamp, and Medicaid Benefits. The 1987 Reauthorization of the Older Americans Act provided for an authorization of $10 million for AoA to conduct outreach activities. Even though these funds were not appropriated, through the efforts of the AoA Regional Offices and the network on aging, AoA has been able to facilitate outreach activities at the State and local levels.

During FY 1988, AoA began distributing outreach materials to the States on the Supplemental Security Income (SSI), Food Stamp, and Medicaid Programs. Continuing this effort into FY 1989, arrangements were made for the Social Security Administration (SSA) to send SSI outreach materials directly to the States. oA disseminated the brochure, "Facts About the Food Stamp Program" published by the Department of Agriculture's Food and Nutrition Service, and the SSA Fact Sheet describing two provisions of the SSI Program that were effective on July 1, 1988. Sharing of information and materials between the Health Care Financing Administration (HCFA), SSA, and AoA at the Regional, State, and local levels is ongoing.

These efforts respond to the concern of Congress and the President that all older people be made fully aware of the benefits available to them under the SSI, Food Stamp, and Medicaid Programs and that eligible individuals be encouraged to apply. State Agencies on Aging were urged to review the available materials and to develop or strengthen effective outreach programs throughout the State to increase the participation of the elderly in the programs. AoA Regional Program Directors were asked to contact State Directors on Aging to offer their assistance in organizing Statewide outreach campaigns. AoA Regional Work Plan Accomplishments Reports indicate that most of the States have, or will develop, new SSI outreach activities.

Collaboration, Linkages, and Systems Building: AoA, SSA, HCFA Memorandum of Understanding

During FY 1989, AoA, SSA, and HCFA engaged in discussions on how the three agencies can work collaboratively to develop and coordinate programs that are accessible to all older people and that assure special help for the most vulnerable. These discussions resulted in a draft Memorandum of Understanding between the three agencies. Under this proposed agreement, AoA, SSA, and HCFA would jointly engage in collaborative activities to achieve the goal of promoting the well-being of older persons by providing a coordinated response to the needs, problems, and concerns of older persons. Such activities would support the following objectives - (1) to improve the coordination of services funded under the program authorities of AoA, SSA, and HCFA which relate to older persons; (2) to increase public awareness of SSA and HCFA entitlement programs, the nutrition and supportive services of AoA and other programs which promote the well-being of older persons; (3) through special outreach efforts designed to increase participation in SSA and HCFA entitlement programs, the nutrition and supportive services programs of AoA and other programs which promote the well-being of older persons; (4) to reduce dependency on entitlement programs; and (5) to improve health care for vulnerable older people.

Developmental Disabilities

Throughout FY 1989, AoA forwarded Information Memoranda to States which discussed the Older Americans Act Amendments of 1987 as they relate to older persons with developmental disabilities and shared selected examples of effective collaboration between the networks of AoA and the Administration on Developmental Disabilities. The AoA Regional Offices were provided information and resource materials to assist them in forging linkages and developing collaborative relationships with the ADD network.

Memorandum of Understanding between AoA and ADD--Areas of Federal, State, and local level collaboration between the AoA and ADD networks were identified at the February 1989 meeting of the University Affiliated Programs and at a subsequent meeting with the New York State Office of Mental Retardation. These recommended areas served as the basis for the June 27, 1989, Memorandum of Understanding between AoA and ADD. The purpose of the MOU is to improve the coordination of programs administered by AoA and ADD which relate to the welfare of older persons with developmental disabilities. Under this agreement, AoA and ADD will jointly develop and implement initiatives to (1) promote a better understanding of programs serving the elderly and persons who are disabled between the AoA and ADD networks, (2) improve the coordination of programs and services for older persons with developmental disabilities, and (3) promote the integration of these individuals into the mainstream of society. AoA and ADD will also undertake the development of other joint initiatives which promote the independence and well-being of older persons with developmental disabilities.

International Conference on Aging and Developmental Disabilities--AoA and ADD provided funding for the 1990 international conference on research and practices in the area of aging and developmental disabilities. The purpose of the international conference is to assemble a group of international researchers, practitioners, and public officials to discuss state-of-the-art practices in aging and developmental disabilities. The objective of the conference is to synthesize the current practice and identify future areas of inquiry and program development. Conference participants will include individuals from Europe, Australia, and Hong Kong who are considered leaders in research or practice regarding older persons who are developmentally disabled. These individuals will interact with a selected group of national and State leaders within the United States and Canada with regard to research, practice, and public policy.

Interagency Agreement between AoA and the National Institute for Standards and Technology--Fire Safety in Board and Care Homes--The major development in fire safety in recent years has been the adoption of the Fire Safety Evaluation System for Board and Care Homes into the Life Safety Code (Chapter 21). This system was developed by the National Bureau of Standards (now called the National Institute for Standards and Technology (NIST). In April 1989, AoA entered into an Interagency agreement with NIST. The objective of the agreement is to assure a high level of fire safety in board and care homes and to decrease the cost of achieving such safety. Under this agreement, AoA is participating jointly with the Department of Education, ADD, and the Health Care Financing Administration in the funding of a project to evaluate the fire safety evaluation system in board and care homes and to foster the use of Chapter 21 with an emphasis on determining the scope of its current use and the degree to which its use is achieving the desired goals. The project will provide information regarding whether or not the use of the Chapter 21 model requirements provides a high level of safety at reasonable cost.

SECTION II - TITLE III SUPPORTIVE AND NUTRITION SERVICES

Introduction

The Administration on Aging (AoA) is the lead component within the Department of Health and Human Services on all issues concerning Aging. It advocates for the needs of the elderly in program planning and policy development; provides technical assistance; issues best practices guidelines; and initiates policy relative to funding the States and Territories for the provision of services to older Americans according to Title III (Grants for State and Community Programs on Aging.)

Each State Agency is required to subdivide the State into Planning and Service Areas (PSAs) and to designate within each PSA an Area Agency on Aging (AAA) to be specifically responsible for carrying out the purposes of the Act within the PSA. While most States have a statewide network of Area Agencies on Aging, fifteen States/Territories have designated their entire geographic area as a single PSA with the State agency performing the Area Agency functions because of their small geographic areas or population size.

State Agencies on Aging

The Older Americans Act provides that the State Agency on Aging shall be the leader relative to all aging issues on behalf of all older persons in the State. This means that the State Agency proactively carries out a wide range of functions related to advocacy, planning, coordination, interagency linkages, information sharing, brokering, monitoring and evaluation designed to develop or enhance services for older persons throughout the State. Fifty-nine (59) States and other jurisdictions receive support under Title III of the Act. States may elect durations of two, three or four years for State and Area Plans.

The State Agencies assure that the resources made available to Area Agencies on Aging under the Older Americans Act are used to carry out the Area Agency mission of assisting older persons in leading independent, meaningful and dignified lives in their own homes and communities as long as possible.

State and Area Agencies on Aging work to facilitate the most effective use of all community resources, both public and private, to provide for appropriate services to older persons within the many communities of the Planning and Service Area. To effectively accomplish this goal, there must be a community-wide effort with all appropriate resources, programs and personnel carefully coordinated.

State Agency Staffing

In FY 1988, there were about 2,200 paid staff for the 59 State Agencies on Aging (See Appendix III for staffing information.)

Area Agencies on Aging

In FY 1989, there were over 670 Area Agencies on Aging operating under Title III of the Act. As of the end of FY 1989, there were approximately 684 Planning and Service Areas, including the 15 Single Planning and Service Areas, previously mentioned, covering whole States and Territories. An Area Agency on Aging may be a public or private organization, an Indian Tribe or a sub-State regional body. Area Agencies on Aging have the major responsibility for the administration, at the sub-state level, of Title III funds for supportive and nutrition services. Area Agencies receive their funds from the State Agency on Aging and then award grants and contracts to local supportive and nutrition service providers under an approved area plan.

Area Agencies on Aging are responsible for providing technical assistance to and monitoring the effectiveness and efficiency of, their respective service providers. Through their coordination and planning activities, Area Agencies also address the concerns of older persons at the community level. Area Agencies interact with other local public and private agencies and organizations in order to coordinate their respective activities and elicit or "leverage" additional resources to be used on behalf of older persons.

Area Agency Staffing

In FY 1988, approximately 13,500 people were employed by Area Agencies on Aging. This personnel was augmented by approximately 99,000 volunteers throughout the nation.

Funding State and Area Agencies on Aging

State Agencies on Aging received a total of $715.2 million of Title III funds during FY 1989. Funds under this Title of the Act are made available to the States on a formula basis upon approval of State Plans by AoA Regional Offices. States then allocate funds to Area Agencies based upon approved Area Plans to pay up to 85 percent of the costs of supportive services and senior centers, and nutrition services. In most cases, Area Agencies on Aging then arrange with both nonprofit and proprietary service providers to deliver nutrition and other services described in the Area Plan.

In general, funds provided to Area Agencies are used for the administration and provision of a wide range of supportive and nutrition services authorized under parts B, C and D of Title III as described in the next paragraph.

Title III Services

Title III activities conducted in the States during FY 1989 were based upon State plans ranging in duration from two to four years. In FY 1989 four separate allocations under Title III were made to States for: (a) supportive services and senior center operations; (b) congregate nutrition services; (c) home-delivered meals; and (d) in-home services for the frail elderly. The 1987 amendments to the Older Americans Act newly established Part D to Title III for in-home services for the frail elderly. (See Appendix II for State allotments under Title III in FY 1989).

Title III-B supportive services are designed to provide assistance to all older persons, with particular attention to older persons in greatest economic or social need. Most supportive services fall in three broad categories: access services; in-home services; and other community and neighborhood services. Access services are transportation; outreach; and information and referral. Most in-home services are either homemaker; personal care; chore; and/or visiting and telephone reassurance. Community and neighborhood services include legal services; residential repair; escort services; health services; physical fitness programs; pre-retirement and second career counseling; and other services.

Data on Title III services and program operations are reflected in Program Performance Reports which are sent to AoA each year by the State Agencies on Aging through AoA's ten Regional Offices. The Title III Program Performance Reports for FY 1988 were analyzed during FY 1989. The national program statistics for FY 1988 are provided in Appendix III. These data pertain to: participation levels for Title III-B supportive services; service characteristics and participation under Title III-C nutrition programs; and Title III-D in-home services for frail older persons. Selected program data are presented in the following paragraphs.

The 1987 Amendments to the Older Americans Act require the Administration on Aging to report to Congress specific information regarding the programs and activities under the Act. Although this information was collected by the States for FY 1989, it will not be available until FY 1990.

Title III-B Supportive Services

In FY 1988, the Title III-B program reached an estimated 8.2 million older clients in need of access, in-home, and community-based services. In FY 1988, 16 percent of all participants were racial and ethnic minorities and 41 percent were low income. In the area of access services, transportation was the most frequently provided service, followed by information and referral, then outreach. Of four defined in-home categories, reassurance to elderly persons through visiting and telephone contacts was reported most frequently, followed by homemaker, chore, and home health aide services. Of the four services in the community and neighborhood category, health services were most frequently provided, followed by legal, escort, and residential repair/renovation services.

Title III-C, Congregate and Home Delivered Nutrition Services

Congregate and Home-Delivered Nutrition Services, authorized by Title III-C, continue to be an integral part of the systems which communities are developing to assist their older citizens in maintaining independence and remaining in their own homes as long as possible.

Congregate Nutrition Services

Over 147 million congregate meals were served to older people and their spouses during FY 1988; this total represents an increase from the FY 1987 figure of 146 million. In addition to Title III-C funds, these meals are also supplemented and supported by United States Department of Agriculture funds; Social Services Block Grant program funds; and other Federal, State/local funds; and participant contributions. Over 2.7 million elderly received meals at congregate sites.

Home-delivered Meals

Home-delivered meals are also critical to the maintenance of independence for older persons who are unable to participate in congregate meals programs. During FY 1988, 94.6 million meals were provided to the homebound elderly from Title III-C and other funding sources. This number represents an increase over the 85.9 million home-delivered meals served in FY 1987. A total of 745,097 older persons received home-delivered meals.

Title III-D, In-Home Services for Frail Elderly

Title III-D, In-Home Services for Frail Older Persons, was established by the 1987 Amendments to the Older Americans Act, and funds became available for the first time in FY 1988. Title III-D program performance data for FY 1988 were optional and less than half of the State Agencies on Aging reported data. In FY 1989, State Agencies were required to submit Title III-D data, however, this information will not be analyzed until FY 1990.

Allotment Transfers

Under the Older Americans Act, the State Agencies on Aging have the authority to transfer limited amounts of funds among three of the Title III allotments (parts B and C) in order to better reflect their local needs and priorities. (See Appendix III for Title III State Allotments after Transfers in FY 2989.) In FY 1989 the net transfers were as follows:

	Net Transfers	Percent Change*
Title III-B (Supportive Services)	+$26,349,922	+9.5%
Title III-C-1 (Congregate Nutrition Services)	-$58,550,969	-16.5%
Title III-C-2 (Home-Delivered Meals)	+$32,201,047	+41.0%

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* Transfer as percent of original allotment.

Advocacy and Partnerships

In advocating for older persons, State and Area Agencies on Aging review and comment on State and community policies, programs and issues; provide testimony at public hearings; publish reports; coordinate and provide technical assistance to other public and private agencies and organizations; and leverage resources from other Federal, State and local programs, as well as private charitable and business resources.

Non-federal Resources and Program Income

The Title III program has evolved from a relatively simple program of community service projects for older persons into a complex and highly differentiated "national network on aging" currently consisting of 59 State Agencies and over 670 Area Agencies on Aging and more than 25,000 local nutrition and supportive service providers. These nutrition and supportive service providers are local public, private, or voluntary organizations. Not only do the State and Area Agencies on Aging use Title III monies to provide for services, they also are instrumental in leveraging other public and private monies in addressing the needs of older persons.

Title III regulations (45 C.F.R. Part 1321) require each service provider to "provide each older person [receiving services] with a full and free opportunity to contribute toward the cost of the service." Although AoA emphasizes through the aging network that this is not a fee and that contributions are entirely voluntary, these contributions have been steadily increasing, as follows:

FY 1981	$ 79.0 million
FY 1982	100.8 million
FY 1983	116.7 million
FY 1984	131.7 million
FY 1985	140.1 million
FY 1986	153.9 million
FY 1987	163.6 million
FY 1988	168.1 million
FY 1989	(Data unavailable until late December)

Ombudsman Programs

The State Agencies are authorized by Section 308 of the Act to retain a specified portion of their Title III allocations to help defray their administrative costs. In addition, State Agencies use part of their Title III-B (Supportive Services and Senior Centers) funds and funds from other sources to establish and maintain long term care ombudsman programs at the State and sub-State levels. Through their ombudsman programs, States have addressed such issues as nursing home regulations, abuse of residents' personal funds, and restrictions on access to nursing homes. Complaint statistics and program data for the FY 1988 reporting period were analyzed during FY 1989. Some highlights of these data are as follows:

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- During FY 1988, the most recent period for which data are available, there were 578 sub-state programs.
- Total funding for State and local ombudsman programs in FY 1988 increased from approximately $20.3 million to about $23.3 million. In addition to Title III-B funds, State and local governments used funds from other sources, including State, county, and local revenues, grants under Titles IV and V of the Older Americans Act, and other funding sources.
- Nationwide, more than 10,300 people worked in State and local ombudsman programs during FY 1988, including professional and volunteer staff.

Waivers as Related to Priority Services

The Older Americans Act, as amended, requires that the Administration on Aging collect and report special information about access, in-home and legal assistance services. Section 307 (a)(22) requires that each State Agency include in its State Plan a minimum percentage of Title III-B funds which each Area Agency must expend on access, in-home and legal assistance services unless the state grants a waiver to the Area Agency. Section 306 (b)(2) describes the requirements which must be met by an Area Agency that requests a waiver from providing the required minimum amount for one or more of the priority services and by the State agency in granting any such waiver request.

The Administration on Aging compiled a report on waivers of priority services as required under the Act. The following provides an brief overview of the report:

The Act permits State Agencies to grant waivers to Area Agencies that have not expended the mandated minimums for priority services. The Act also requires the State Agency to follow rigorous procedures in their respective granting and review of waivers. Of the 663 Area Agencies on Aging in the country, only a total of 17 waivers were granted by five States. All of the waivers were found to be complete. Of the 17 waivers granted by the States three were for access, nine were for in-home services and five were for legal assistance.

The data suggest that there is a high level of compliance with the provisions of the Act. The States have set minimum expenditure levels for the priority services. For most Area Agencies on Aging the States report that the actual expenditure levels have been met. Some exceptions reflect the expected receipt of final fiscal reports.

It is clear that the States have taken the Congressional mandate seriously as well as the freedom to define appropriate proportion.

SECTION III - SERVICES TO AMERICAN INDIAN, ALASKAN NATIVE, AND NATIVE HAWAIIANS

TITLE VI GRANTS FOR NATIVE AMERICANS

Under Title VI of the Older Americans Act, the Administration on Aging annually awards grants to provide supportive and nutritional services for older Native Americans.

In the Older Americans Act Amendments of 1987 (P.L. 100-175, signed November 29, 1987) a change was made in Title VI to add older Native Hawaiians to the American Indians and Alaskan Natives who were already being served by Title VI. When Title VI had first been added to the Older Americans Act in 1978, it was named "Grants for Indian Tribes." The Amendments of 1987 renamed Title VI and divided it into two parts. The new name of the title is "Grants for Native Americans." The two parts are Part A, "Indian Program," which includes older Indians and Alaskan Natives, and a new Part B, "Native Hawaiian Program," for older Native Hawaiians. The law stated that Title VI Part B would take effect only if the total appropriation for Title VI exceeded the appropriation for Fiscal Year 1985 (which had been $7,500,000). Thus at the beginning of Fiscal Year 1989 no funds were available for Native Hawaiians, since the original appropriation had been only $7,410,000. The $7,410,000 was distributed effective April 1, 1989 to 181 Indian tribal organizations, for an average grant of $40,439.

Later in the fiscal year, however, Congress reprogrammed funds among the titles of the Older Americans Act so that a total of $10,710,000 was available under Title VI; this included $9,345,000 for the American Indians and Alaskan Natives under Title VI Part A, and $1,365,000 for Native Hawaiians under Part B. Of the $9,345,000 available under Part A, $7,410,000 had already been distributed to 181 tribal organization grantees effective April 1, 1989. Thus the amount available for late supplements for Title VI Part A grantees was $1,935,000. (See Appendix V for amounts of Fiscal Year 1989 grants, including the supplements.)

The amount of $1,365,000 available for organizations serving older Native Hawaiians was awarded in September, 1989 to Alu Like, Inc., a statewide nonprofit organization in Honolulu, Hawaii. Their application described services which would be provided to older Native Hawaiians in the five major islands of the State. The plans included congregate meals, transportation, health awareness and screening, education and recreation classes, and individualized services including escort, friendly visiting, and telephone reassurance. They plan to develop service centers for older Native Hawaiians on each island, located on or near the Hawaiian Home Lands, which are areas for Native Hawaiians.

ELDERS ELIGIBLE UNDER TITLE VI

Persons eligible for Title VI Part A services are tribal members age 60 or over living in a Tribe's Title VI Part A service area, and members under age 60 if the Tribe has selected a younger age for "older Indian." The Older Americans Act Amendments of 1981 allowed Tribes to set a younger age for "older Indian" if considered appropriate. The 181 grantees of Title VI Part A for Fiscal Year 1989 estimated that 73,068 older Indians were eligible for Title VI Part A services, including 58,409 age 60 or over, and 14,659 under age 60. (See Appendix V for the number over and under age 60 for each Tribe, and the age of "older Indian" selected.)

For services under Title VI Part B, Native Hawaiians must be age 60. Alu Like, Inc., the grantee, estimated that 1,300 older Native Hawaiians were in the proposed Title VI Part B service areas on the five major islands and thus were eligible for Title VI services. The grantee estimated that there were a total of 10,876 older Native Hawaiians in the entire State of Hawaii.

STUDY OF SERVICES FOR OLDER INDIANS

The 1987 Amendments to the Older Americans Act in Section 134(e) directed the Commissioner on Aging to study the availability and quality of services under the Act to older Indians. The study was completed and forwarded to the Congress on April 21, 1989.

OFFICE FOR AMERICAN INDIAN, ALASKAN NATIVE, AND NATIVE HAWAIIAN PROGRAMS (OAIANNHP)

On May 19, 1989 the Commissioner on Aging established the Office for American Indian, Alaskan Native, and Native Hawaiian Programs within AoA. This new Office was charged with the responsibility to serve as the focal point within AoA for the operation and assessment of programs authorized under Title VI of the Older Americans Act (OAA) and to provide program and policy direction to the ten Regional Offices of AoA in the execution of their Title VI responsibilities. Additional functions of the Office are to serve as the effective and visible advocate on behalf of older Native Americans, to coordinate activities with other Federal departments and agencies, to administer and evaluate grants provided under the OAA to Indian tribes and public and nonprofit private organizations serving Native Hawaiians, and to collect and disseminate information related to the problems of older Native Americans.

INTERAGENCY TASK FORCE ON OLDER INDIANS

The 1987 Amendments in Section 134(d) directed the Commissioner on Aging to establish a permanent Interagency Task Force on Older Indians, with representatives of departments and agencies of the Federal Government with an interest in older Indians. The responsibility of the Task Force, as stated in the 1987 Amendments, is to report to the Commissioner at 6-month intervals on their findings and recommendations with respect to facilitating the coordination of services and the improvement of services to older Indians. The Task Force is to be chaired by the Associate Commissioner on American Indian, Alaskan Native, and Native Hawaiian Aging who is to be appointed by the Commissioner. At the end of the fiscal year, plans were underway for convening the Task Force.

SECTION IV - AOA DISCRETIONARY PROGRAMS

TITLE IV-A: EDUCATION AND DEVELOPMENT PROJECTS

Sections 410 and 411 of the Older Americans Act authorize the award of grants and contracts to assist in recruiting persons, including minorities, to enter the field of aging; to train professional and paraprofessional persons employed in or preparing for employment in fields having an impact on the aging; and to provide technical assistance and other activities related to training. Other section of Title IV authorize health promotion projects and projects in long term care.

Several of the AoA National Goals for FY 1990 constitute the organizing framework for describing AoA's education and development initiatives in FY 1989. These goals are:

- Manpower Development
- Targetting -- Strategic Resource Allocation
- Promotion and Enhancement of Community Based Service Systems
- Prevention and alternatives to Institutional Care
- Public Private Partnerships
- Strengthening the Family and Generational Bonding

Highlighted below are new and continuing education and development project activities for FY 1989 under each of these six (6) AoA national objectives, grouped according to specific focus areas.

1. MANPOWER DEVELOPMENT

The primary objective of the education and training program is to improve the quality of service and to help meet critical shortages of adequately trained personnel for programs in the field of aging. Specifically, activities supported under this program support the AoA Objective of promoting State and community leadership as they endeavor to meet the need for qualified individuals to assume leadership roles in developing and implementing responsive community-based systems of care for the elderly.

In FY 1989, AoA awarded eighteen (18) new grants in three training areas. A brief description of some of the major activities which these projects will undertake is presented below along with a description of major ongoing projects funded in FY 88:

A. National Leadership Institute on Aging During its first year the activities of the Institute focused on the development of program philosophy, conceptual framework, curriculum and other design and implementation tasks. These activities included the development of curriculum modules, program agenda and training materials, hiring of staff, selection of training site, faculty selections, establishment of an Advisory Committee which was convened twice, development of participant selection procedures, and design and dissemination of promotional materials.

Two 12-day residential seminars were successfully conducted in May and September, 1989, for approximately 65 participants. The residential seminars, the core of the program, are intended to assist aging network executives to examine and develop their leadership styles and capacities and to challenge and inspire them to seek new ways to fulfill their roles as key policy makers in our rapidly expanding aging society. The response of the participants to the training program has been overwhelmingly positive.

B. Native American Leadership Institute In FY 1988 one (1) grant was awarded to Three Feathers Associates to conduct a training program for Title VI Directors. The first Native American Leadership Institute on Aging was held August 13-23 in Alexandria, Virginia and provided comprehensive training to Title VI Directors. The training increased the competencies and leadership skills of the Title VI Directors in administering and managing multi-service aging programs for Indians and Alaskan Natives. Segments of the curriculum included legislative and administrative history of aging services, program planning and implementation, program management and gerontology issues.

The Institute training encouraged networking between Title VI projects and enhanced the Title VI Director's understanding of community-based care systems development which will enable them to improve linkages with State Agencies on Aging and Area Agencies on Aging.

C. Career Training for Professionals and Paraprofessionals

A wide variety of professional and paraprofessional occupations significantly impact the lives of older people. To affect this population the Administration on Aging encouraged the inclusion of aging content in programs leading to certification or academic degree for persons in the field or preparing to enter these fields as an area of priority. Programs targeted to benefit from specialized gerontological or geriatric content in their career preparation include, physical therapists, counselors, occupational and recreational therapists, home economists, pharmacists, home health aids and others.

Ongoing Projects In September, 1988, nineteen grants were awarded in this category; four have reached their completion date and the other fifteen are due to come to a close in the first three months of 1990. Each program chose a unique and individualized method to achieve the, more or less, common objective, to include gerontological content in their curriculum in the present and as an existing part of future instruction.

Examples of the types of projects funded are: (1) initiate a "teaching nursing home" and develop an assessment tool to identify at-risk community elderly and (2) improve counseling services to older persons by increasing and institutionalizing gerontological counseling concepts and courses into existing counselor preparation programs.

As a part of the career preparation for professionals and paraprofessionals training priority area, Gallaudet University, Washington. D.C., was awarded a two year grant to develop a curriculum in aging and hearing impairment to train graduate level social workers in the knowledge, values, and skills necessary to work effectively with hearing impaired older persons. The project is designed to produce a sequence of courses and field instruction for a specialization in gerontology and hearing impairment and to produce a cadre of social workers who can provide direct services, participate in community planning and conduct research for the benefit of elderly persons who are hearing impaired.

New Projects During FY 1989 AoA awarded seven (7) new grants to institutions of higher education for gerontological training and development projects.

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These projects have focused on several key areas including faculty development in gerontology, replication of successful curricula in institutions where gerontology has not been taught as extensively, and development of gerontological faculty and programs in minority institutions. Examples of projects include: (1) a project to provide gerontological training to faculty of 25 American Indian colleges; (2) replication of a successful gerontological social work curriculum in seven institutions in Hawaii and the Pacific Islands; and (3) development of gerontological programs in several New York City institutions with high minority enrollments.

D. Short Term Training and Continuing Education

Ongoing Projects Fourteen (14) FY 88 in-service training and continuing education grants were ongoing in 1989. These had been awarded to State Agencies on Aging, academic institutions, and national aging and professional organizations to develop and conduct training activities for persons currently employed in occupations serving the elderly. Occupational groups represented in these projects include hospital discharge planners, social workers, home health and nurses aides, ministers, nursing home administrators, residential care managers, physicians, dentists and pharmacists.

Examples of the types of projects funded are:

1) A project in Arizona developed and implemented a workshop training program for nurses aides working in long term care facilities in Arizona on the care of Alzheimer's Disease patients.

2) Three (3) projects developed and implemented state-wide training of 1200 discharge planners and other health professionals serving older persons over one to four day periods. The purpose of the training was to increase the effectiveness of discharge planning, improve quality of patient care and enhance appropriate utilization of resources. The projects feature a multidisciplinary approach for developing collaborative working relationships between hospital personnel and the aging services network with special emphasis on continuity of care.

3) One project conducted a training program for Clergy and Aging Network personnel in Georgia. The purpose of this projects was to establish a statewide training model for a continuing education certificate in Gerontology in Religion and Aging. The training centered on gerontology and coalition building, resulting in clergy and agency staff collaboration that extends programs and services by, for and with older persons in Georgia.

New Projects In FY 1989, eight (8) grants were awarded to academic institutions, national professional organizations, and State Agencies on Aging to develop and conduct short-term training activities for persons working with or planning programs for the elderly. Occupational and professional groups targeted in these grants include in-home health and personal care workers, managers of elderly housing, hospital discharge planners, social service agency case managers, parole officers, and speech and hearing therapists, and academic teachers and researchers.

Seven projects will develop and pilot test training curricula and materials in topical areas of specific focus on special populations including, minorities, the frail and disabled, victims of dementia and elder abuse, older parolees, and low income housing tenants. The remaining project will place post-doctoral researchers and educators in aging and health care planning and service organizations to conduct three month planning, evaluation, and research studies guided by their host institution.

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E. National Projects to Improve Accreditation Requirements in Aging--Ongoing Projects Four (4) projects awarded to national professional organizations in FY 1988 to develop programs on improving the instructional content in gerontology and aging-related knowledge and skills in the fields and professions of homemaker-home health aides, physical therapists, social workers, nurses and counselors made substantial progress towards completion of their objectives.

A common feature of these grants is the involvement of nationally known experts in these fields as members of working advisory boards, staff or consultants. They are helping to refine the competency standards of persons who work with the elderly in their field. Competencies are defined as the ability to demonstrate and apply specific skills, knowledge, and attitudes which are used in working with older persons or in the conduct of work which has a substantial impact on the life of older persons. When consensus is reached, competencies are directly translated into professional and paraprofessional preparation, certification examination, and employment standards.

F. Minority Management Traineeship Program

Ongoing Projects

In FY 1988 The Administration on Aging awarded ten (10) grants in the area of Minority Training and Development. This priority area is designed to stimulate opportunities for training and the employment of minorities for management positions in the aging network. Five (5) of these grants were awarded to academic institutions, including two (2) Historically Black Colleges and Universities, two (2) to National Hispanic Aging Organizations, one (1) to a State Office on Aging, one (1) to a City Office on Aging and one (1) to a State Association of Councils on Aging. This represents a total of 101 trainees to be placed in State and Area Agencies on Aging and social agencies serving the elderly for administrative and managerial training. At the completion of the training period the trainee is expected to be hired in an administrative or managerial position by the host agency. If employment is not available in the host agency, the trainee will be assisted by the host agency and the grantee in locating employment in the aging network.

New Projects In FY 1989 AoA awarded three (3) new awards for Minority Management Traineeship projects. Each of the grantees are national minority aging organizations which will conduct nationwide traineeship programs in a variety of organizational settings leading to management and administrative positions.

2. TARGETTING -- STRATEGIC RESOURCE ALLOCATION

HBCU INITIATIVE -- HEALTH PROMOTION AMONG MINORITIES

Ten (10) projects were awarded under the FY 1989 AoA Historically Black Colleges and Universities Initiative (HBCU). The initiative is designed to meet the health promotion needs of older minority people. Louis W. Sullivan, M.D., U. S. Secretary of Health and Human Services, said that "too many Americans, especially among minority populations, are not getting help or information about preventing disease." Research has indicated that, often, minority elderly are disproportionately impacted by negative variables that influence their health and that they are more likely to be disabled and see themselves as being in poor health than elderly white people. Evidence indicates that there is an urgent need to provide information about, encourage and motivate older minority people to adopt good physical and mental health practices. In addressing the issue, AoA responded to Presidential Executive Order 12677 which asks Federal agencies to support HBCUs and to enlist their participation in agency efforts to meet their mandates.

3. PROMOTION AND ENHANCEMENT OF COMMUNITY BASED SERVICE SYSTEMS

A. National Aging Resource Centers on Long Term Care Ongoing Projects

Six national Aging Resource Centers on Long Term Care were established in FY 88 for a three year period to provide training and technical information to State and Area Agencies on Aging to assist them in working with communities, public and private agencies, professionals and the public in implementing and coordinating programs and activities in a variety of topical areas. All six Centers were refunded during FY 1989.

Each Center has a specific expertise in a field of long term care. These include case management and assessment, quality assurance, data collection and analysis, long term care management of Alzheimer's Disease Patients, Medicaid coordination, supply and training of home care personnel, and supportive services and arrangements in adult housing. Centers collect information and research results, produce issue synthesis papers, and provide consultations, training and technical assistance to State and Area Agencies in their chosen areas of emphasis.

The Centers and the Administration on Aging work jointly to develop work plans under the Centers cooperative agreements. During their initial year, each Center developed a national advisory committee which included representation of State and Area Agencies on Aging and experts in long term care. All Centers conducted a needs assessment of State and Area Agencies to establish and priorities needs within Center topical areas. The results of this assessment were used to develop both the first year and future year work plans for each Center. Following are brief descriptions of Centers which include their description of their mission, core topics within this mission, and products which were worked on or completed in 1989.

The National Aging Resource Center on Long Term Care - Planning and Management of Community-Based Care at the Bigel Institute for Health Policy, Brandeis University, utilizes faculty and staff to assist State Agencies on Aging in strengthening their policy-making, program planning and program implementation capacities in the delivery of coordinated, community-based long term care services. During Year 1 the Center's topical modules were: (1) integration of health and long term care financing and service delivery systems, and (2) exploring best practices for recruitment and retention of in-home workers with effective monitoring. Issue papers on home care personnel, the Medicare catastrophic coverage act, long term care financing and delivery, and developing private markets in long term care were published. The Center conducts numerous major training events and responds to individual requests for technical assistance.

The National Aging Resource Center on Long Term Care - Decisions by Older Persons, Families and Providers (DECISIONS) at the Schools of Public Health and Public Administration, University of Minnesota, utilizes faculty and staff to assist State and Area Agency administrators, planners, and policy makers in planning and implementing long term care service systems, including case management, which incorporate decision making by older persons, their families and professionals care givers. During its first year of operation, the Center synthesized existing functional assessment instruments covering physical, mental, cognitive, social interaction, and social supports which are in use or have been tested by health care and social service agencies and organization. The Center publishes a newsletter, conducts periodic conferences in Minnesota and selective national professional association meetings, and responds to individual requests from State and Area Agencies on Aging for consultation.

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The National Aging Resource Center on Long Term Care - Linkages between Aging Network, Hospitals, and Residential Facilities at the University of California at Los Angeles in collaboration with the University of Southern California, utilizes faculty and staff to promote better health-care partnerships among State and Area Agencies on Aging, hospitals and long term care facilities, decrease fragmentation and encourage more appropriate utilization by providers and consumers of the full range of options available to older persons to remain independent. The Center provides training and technical assistance to State Agencies in the areas of discharge planning, respite care, geriatric assessment programs, supportive housing and home modifications. Publications include a newsletter and materials on housing and home modification, respite care, emergency medical services and the Prospective Payment System.

The National Aging Resource Center on Long Term Care - State Management of Community-Based Care Systems at the National Association of State Units on Aging, provides assistance to State Agencies on Aging that are integrating major community care components into cohesive service delivery systems. Major emphasis is placed upon development of new approaches for quality assurance and strengthening linkages among acute, primary and institutional care systems. During its first year of operation, the Center conducted teleconferences on State legislation and case management, with published proceedings, produced a Medicaid Orientation Guide, reports on minority elderly needs and quality assurance issues, and is developing a Case Management Policy Manual and Compendium of Training Materials. The Center disseminates a newsletter and information packets addressing emerging long term care issues, conducts periodic training conferences at regional and national association meetings, and responds to State Agency requests for on-site and telephone technical assistance.

The National Aging Resource Center on Long Term Care - Alzheimers Disease and other Dementias at the Suncoast Gerontology Center, University of South Florida is designed to respond to the needs and priorities identified by State Agencies on Aging as they plan, develop and implement programs and services for Alzheimer's Disease victims and their family caregivers. The Center provides State Agencies with information, national and regional training sessions, and technical assistance in establishing effective, comprehensive and coordinated statewide service systems and programs to recognize, diagnose, and provide short term treatment and long term management to Alzheimer's Disease patients, and meet the needs of their family caregivers. Center publications include a newsletter and applied research products, including best practice guides for educating minority caregivers, providing respite care, and evaluating day care centers.

The Heartland Center on Aging, Disability and Long Term Care at the National Center for Senior Living and the School of Public and Environmental Affairs, Indiana University at Indianapolis, utilizes faculty and staff resources from the multi-campus Indiana University systems, the University of Notre Dame and Purdue University Indian University, to provide technical assistance that meets the data needs and practices of State and Area Agencies on Aging in long term care planning and data analysis. The Center trains planners through workshops at national meetings, through site visits, and through a practitioner fellowship program. Information about selected data-based studies on special populations, such a minorities, low income, rural elders and disabled are disseminated through special reports and a national newsletter. Two special reports under development during the first year were a resource guide on use of national long term care data bases and a best practice guide on assessing needs of older persons.

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B. Community Focal Points

Recognizing the important role which community focal points can play in community based systems, in FY 1989 AoA awarded two projects to encourage the development of senior centers as community focal points for older persons. One is a contract to provide technical assistance and training to the States and will focus on access and responsiveness of services. Training attendees will include representatives from State Agencies on Aging and Area Agencies on Aging and AoA Regional Offices. Products will include a brochure and a technical handbook.

The second project is a two year grant to the develop a model rural focal point system in Nebraska. It will develop, evaluate, and disseminate a methodology for the development of community focal points in rural areas. It will also create a resource manual adapted to suit a rural environment and develop models for state and community resource councils. A video training package for workshops will also be produced.

C. Center for State Long Term Care Ombudsman Resources.

This Center is operated by the National Association of State Units on Aging in cooperation with the National Citizens Coalition for Nursing Home Reform. The Center's primary focus is on building Statewide systems of ombudsman services to address the issues facing older residents in long term care facilities. The Center initiated a number of activities during its first year including: development of a State Ombudsman Resource Manual; multi-regional teleconferences for information sharing with and among States; a National Training Conference for ombudsman and State staff; two training modules for States to use in training local ombudsman; a simplified guide to OBRA legislation; and a bi-monthly Center newsletter called the "Ombudsman Reporter". In addition to the Resource Center's responsibilities for technical assistance and training for states, the Center is conducting a study of ombudsman services to residents of board and care facilities. One section of this study is devoted to use of volunteers.

4. PREVENTION AND ALTERNATIVES TO INSTITUTIONAL CARE

During 1989 AoA carried out a wide range of activities addressing the theme of prevention of dependency. Many of these centered on health promotion and disease prevention--both through funded projects and through special initiatives and interagency activities. This section will describe the 1989 activities in this area.

A. HEALTH PROMOTION -- Funded Projects

NATIONAL RESOURCE CENTER ON HEALTH PROMOTION AND AGING

In FY 1988 AoA awarded a three year cooperative agreement to the American Association of Retired Persons (AARP) to establish a National Resource Center on Health Promotion and Aging. The principal mission of the Center is to serve the State Units on Aging by providing training and technical assistance as well as providing information and other resources to agencies and organizations who are interested in health promotion and older adults.

In 1989, the Resource Center conducted a comprehensive needs assessment of the 59 State Units on Aging to determine the extent of health promotion activities and needs throughout the country. In addition, the Center continued to expand its activities with presentations to Directors of State Units on Aging at three Regional Offices of AoA and visited several other States. The Center disseminated thousands of copies of brochures about the Center and a quarterly health promotion newsletter; is developing a video on health promotion for minorities; and is providing intensive technical assistance to State Units on Aging.

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AoA refunded the Center in FY 1989 for a second year of operation during which the Center will continue and expand its training and technical assistance to the States and will also focus on minority issues and will develop an extensive resource library. The Center is assisting in collaboration with National Council on Patient Information and Education in disseminating resource materials on patient education in support of "Talk About Prescription Month" in October.

Prototype Health Promotion Projects -- SECTION 422(a)2

Ongoing Projects

Nine (9) projects were awarded under the Fiscal Year 1988 priority area "Education for Self Care." All were awarded to public and private institutions of higher education. The purpose of this priority area was to solicit proposals for the design and development of prototype health education and promotion programs that could be adopted by States and their Area Agencies on Aging. Section 422(a)(2), authorizes AoA to support these activities at public or private institutions of higher education with graduate programs that have capability in the areas of public health; medical science; psychology; pharmacology; nursing; social work; health education; nutrition; or gerontology.

Prevention of Fire and Smoke Related Injuries and Death

Four (4) projects were funded in FY 1988 which focused on two aspects of improving in-home fire safety for older persons: (1) public education and (2) programs to assist older persons to make necessary modifications to their living environment to minimize the risk of fires. Products thusfar developed have proven to be excellent. These include a 30-minute video, Public Service Announcements, brochures, training manuals, a research paper, and items to be used at meal sites including placemats, bill stuffers and posters. Additional, many hours of successful training of older persons, firefighters, family members, caregivers and service providers have been accomplished.

Alcoholism As part of both the Secretary's Initiative on Indian Alcoholism and the Departmental Initiative on Alcoholism, AoA continued its health promotion efforts in this area. The three projects awarded to Indian Reservations in 1988 to assist in developing alcoholism prevention and education programs for older persons and their caregivers continued their activities and will conclude in 1990. Four additional projects were in funded in 1989, also in response to the recommendations on Alcohol Use and Abuse from the 1988 Surgeon General's Workshop on Health Promotion and Aging. Two (2) projects are studying study alcohol abuse and alcoholism among the aged. Two (2) additional projects are developing model educational programs for older persons, their families, and formal and informal caregivers to recognize and seek help for problems related to alcohol use and abuse.

American Association of Dental Schools (AADS)

In FY 1987, a grant was awarded to the American Association of Dental Schools (AADS) to expand and improve the predoctoral curriculum in geriatrics in U.S. dental schools. The completed product, The Geriatric Dentistry Curriculum Resource Book, has proven to be an outstanding publication which is currently being widely disseminated.

Additionally, AADS was funded in FY 1988 to improve the geriatric education provided by the U.S. Dental Hygiene schools. AADS will establish guidelines in dental hygiene, produce a resource book similar to the one described above, and present resource material to faculty during a two-day workshop.

New Projects The FY 1989 AoA Discretionary Funds Program Announcement, in keeping with Section 422(a)(2) of the 1987 Amendments of the Older Americans Act, encouraged institutions of higher education to submit applications for prototype health education and promotion programs. Nine (9) new projects were funded and will focus on the following health promotion topics: nutrition education for Native Americans; injury prevention; smoking cessation; hearing impairment; physical fitness and exercise; and alcoholism. Most of theses projects include the development and testing of prototype or model health education and health promotion programs which can be adapted or replicated by a State or in other States. The discretionary grants funded this year, as well as those funded in the last two years, will continue to help support AoA's substantial health promotion efforts.

Another health related project was funded in FY 1989 as a field initiated demonstration project. This project will involve educating pharmacists throughout Florida about the cause, prevention and treatment of Diabetic Retinopathy, as well as how to provide effective patient and community education. In turn, the pharmacists will provide widespread education to various groups including Blacks, Hispanics, Native Americans, and those of low or fixed incomes.

B. HEALTH PROMOTION -- Special Initiatives and Interagency Activities

NATIONAL HEALTH PROMOTION INITIATIVE

The National Health Promotion Initiative for Older Persons is a joint activity sponsored by the Administration on Aging and the U.S. Public Health Service. This multiyear activity was officially launched in 1984 with the signing of the first of several Memoranda of Understanding between the two agencies. The Initiative is designed to improve the health status of older persons and improve the quality of life of their later years.

The Initiative has three major goals: (1) maximizing the opportunities for older persons to live independently through improvement of their health status; (2) focusing attention on health promotion and disease prevention through improved nutrition; physical fitness; smoking cessation; mental health; dental health; adult immunization; prevention of fire and smoke related accidents and injuries; and driver and pedestrian safety; and (3) curtailing health expenditures caused by preventable conditions. Some specific activities conducted during FY 1989 to attain these goals are discussed below.

Administration on Aging/U.S. Public Health Service Memorandum of Understanding

In 1989, AoA and PHS renewed their joint agreement on the health promotion initiative, which has been in effect since 1984. The revised Memorandum of Understanding (MOU) is a collaborative effort with the various agencies which participate in the Health Promotion Initiative, including AoA and the following PHS agencies: the Office of the Surgeon General; the National Institute on Aging; the Office of Disease Prevention and Health Promotion; the Health Resources and Services Administration; the Food and Drug Administration; the Centers for Disease Control; and the National Institute of Mental Health. The Memorandum of Understanding will serve as the working agenda for the health promotion initiative for the next two years. Special emphasis will be on revitalizing Statewide health promotion coalitions. Priority areas for 1989 are: alcoholism, smoking cessation, nutrition, injury prevention, and exercise. For 1990, the priorities are: diabetes, depression and hearing impairments.

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Smoking Cessation The Administration on Aging, in conjunction with the Office of Smoking and Health, the Office of Disease Prevention, and the American Association of Retired Persons, began the development of an initiative to encourage older persons that "It's Never Too Late to Quit Smoking." The initiative, which is a follow-up to the recommendations of the 1988 Surgeon General's Workshop on Health Promotion and Aging, will include a public education and awareness campaign on the possibilities for stopping smoking at any age and will encourage older persons and their families and caregivers to seek the necessary resources to assist them in this effort.

Other Health Promotion Activities. The Administration on Aging supported the development and distribution of the fourth annual Health Promotion Calendar for Older Persons. Owing to the success of the prior calendars, the 1989 calendar was a joint effort between AoA, the National Council on the Aging and a private sector sponsor.

The Administration on Aging again collaborated with the National Osteoporosis Foundation to produce a poster and materials in support of National Osteoporosis Month. This activity is designed to raise national awareness of the prevalence of this disease among older persons and the possibilities which exist for prevention through modification of lifestyles.

C. TECHNOLOGY AND AGING

Another area in which AoA promoted alternatives to institutional care is in through the use of technology to help meet the needs of older people. In 1985, AoA entered into an agreement with the National Aeronautics and Space Administration (NASA), the National Institute on Aging (NIA), the Veterans Administration (VA), and the National Institute on Disability and Rehabilitation Research (NIDRR). The purpose of this agreement is to collaborate on using NASA aerospace technology and scientific knowledge about aging to develop, produce and market devices to assist the elderly. As a result of this agreement, a prototype device to notify caregivers of wandering behavior by impaired older persons is being developed through a contract with Cortrex Electronics, Inc. The next step in this project will be clinical trials of the device.

In addition, the agencies convened a roundtable of experts in December, 1988, on the seating and mobility needs of the elderly. A report was developed on the findings of the roundtable regarding the status of current technology and specific needs for further research and development.

Small Business Innovation Research Program

During FY 1989, five Phase II contracts were awarded under the Small Business Innovations Research Program (SBIR) to projects originally funded in FY 1988. These contracts address the issue of the application of technology to help meet the needs of older persons. Under the Small Business Innovation Development Act (P.L. 97-219) DHHS and other federal agencies set aside a specified portion of their research and development funds for an SBIR Program. The legislation is designed to stimulate technological innovation; use small business to meet federal research and development needs; increase private sector commercialization of innovations derived from federal research and development; and foster and encourage participation by minority and disadvantaged persons in technological innovation.

SBIR is a three phase program. The Phase I contracts awarded in FY 1988 concluded in November 1988. In FY 1989, five Phase I contractors competed successfully for Phase II awards. Three contracts are for development of simple, low cost products that could enable older people to perform the tasks of daily living. Two contracts are for the development and implementation of a service delivery model that combines the use of low technology devices and traditional supportive services to effect greater independence by frail but mentally alert older persons.

5. PUBLIC PRIVATE PARTNERSHIPS

A. Corporate Eldercare

Increasing numbers of individuals have dual responsibilities as employees and as caregivers for older relatives. This has brought the issue of caregiving into the workplace. Corporations are beginning to recognize that the stress resulting from the uncertainties and responsibilities of caring for an older relative takes its toll in the workplace through lower morale, absenteeism and decreased productivity.

This project provided intensive training in caregiving and aging issues to corporate human resource and employee assistance professionals in 12 cities across the country through teleconferencing technology. The AoA funded teleconference was developed and produced by the University of Bridgeport and the National Council on the Aging. It was supported in part by the American Association of Retired Persons and hosted by a corporate sponsor at each site. The project also focused on developing linkages between the employee assistance professionals and the State Agency on Aging through direct participation of State Directors on Aging at teleconference sites and through aging network involvement in the development of resource materials.

B. Other Partnerships with Business

Washington Business Group on Health (WBGH). WBGH is a national membership organization representing over 200 local business/health coalitions. This project has focused on the development of 12 model partnerships between business/health coalitions and the aging network. Four of these have been devoted exclusively to issues facing employed caregivers of older relatives. The remaining eight "mini-grants" are devoted to aging program development in a variety of areas including work and retirement, health promotion and health education.

The project is producing an excellent bi-monthly newsletter entitled "Together in Aging". Also, the project is nearing completion of a background paper and policy report for employers on the issue of caregiving as well as training materials for Area Agencies on Aging on encouraging corporate involvement in caregiving programs.

In addition, project activities have been highlighted in a number of public forums. Some of these include a Congressional forum on public/private partnerships in eldercare co-sponsored with Olympia Snowe and John Glenn (November, 1988) and conferences co-sponsored with the National Association of Manufacturers (January, 1988) and the American Society on Aging (March, 1989).

C. National Energy and Aging Consortium. The Consortium is a coalition of national public and private sector organiza- tions concerned about the energy related needs of the elderly. Energy related needs involve a broad spectrum of issues such as housing, assistive devices in the home, low income energy assistance and others. AoA takes an active role in the Consortium and

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serves as a member of the Steering Committee. A major focus of the Consortium is the development of State energy and aging consortia. To date, 14 such consortia have been established. During 1989 the Consortium's primary activity was to plan and convene a major national conference entitled "Building Better Partnerships: Energy and the Elderly in the 1990's" in Tulsa, Oklahoma in collaboration with the Oklahoma Energy and Aging Consortium.

6. STRENGTHENING THE FAMILY AND GENERATIONAL BONDING

Intergenerational programming has emerged as a creative way of maximizing resources and meeting the needs of young and old. It is the caregiving system which helps the elderly person remain in the community setting, and it is the breakdown of this system which contributes to institutional placement. In an effort to provide respite care to families caring for physically and mentally disabled elders, project "Time Out' - an intergenerational approach to respite care - was conducted by Temple University. This project demonstrated that an intergenerational approach to providing respite services is viable. Families who received services found the program very helpful. When supported by appropriate services, the families can nurture and care for their elders within the community. Information and materials for replication developed by this project include: (a) a 7-12 minute slide/tape show, (b) The Respite Worker's Handbook, (c) The Trainer's Manual, (d) Time Out brochures and posters and (e) A Program Development Manual.

Title IV-B: Research and Demonstration Projects

Title IV-B of the Older Americans Act authorizes funding for research and demonstration projects to identify, assess and demonstrate new approaches and methods to improve the well-being and independence of older persons. The primary objective of AoA-supported research and demonstration projects is to assist in establishing, in every community of the nation, a comprehensive system of community services that responds to the talents and needs of older persons. To that end, AoA-supported research is aimed at developing new knowledge that will increase the capacity of State and local agencies, in both the public and private sectors, to assist older persons in achieving and maintaining ecomomic and personal independence. AoA-funded demonstration projects seek to test new models, systems and approaches for planning and organizing effective, comprehensive services delivery systems.

Several of the AoA National Goals for FY 1990 constitute the organizing framework for describing AoA's research and demonstration initiatives in FY 1989. These goals are:

- Older Persons as a Resource
- Strengthening the Family and Intergenerational Bonding
- Prevention and Alternatives to Institutional Care
- Promotion and Enhancement of Effective Community Based Service Systems
- Targetting - Strategic Resource Allocation

New and continuing research and demonstration project activities carried out in FY 1989 are highlighted below. They are arrayed under each of the five (5) AoA national goals and grouped according to specific focus areas.

1. OLDER PERSONS AS A RESOURCE

A. Employment/Income Generation Projects

Ongoing Project Activities: Activities continue on a project that focuses on sensitizing management and labor to the various methods that exist to increase employment and retention opportunities for older workers. The grantee is also looking at the different retirement planning services available at up to ten (10) corporations participating in the project.

An award for continued funding of a project was made by AoA to a national organization to support activities aimed at transferring innovative, international, income generating services to the United States. A major publication is being written synthesizing state-of-the-art information, models and strategies related to small enterprise development and the special needs of older workers. Additional efforts are being made to disseminate information about income-generating enterprises for the elderly.

2. STRENGTHENING THE FAMILY AND INTERGENERATIONAL BONDING

A. Alzheimer's Disease Program Activities

Ongoing Project Activities: During FY 1989 work continued on a conference program jointly undertaken by AoA and the National Institute on Aging (NIA). These state-of-the-art conferences provide training and information about current practices in caregiving support for families of Alzheimer's Disease patients The program, funded by AoA, supports eight (8) NIA-sponsored Alzheimer's Disease Research Centers (ADRC's) to develop and implement fourteen (14) conferences that are targeted to State and Area Agencies on Aging, aging services providers, primary care and geriatric physicians, researchers, nurses, social workers, case managers, planners, and policy makers.

AoA, in collaboration with the Robert Wood Johnson Foundation (RWJF) and the Alzheimer's Association, Inc., (AAI) are jointly sponsoring the Dementia Care and Respite Services Program. This national undertaking is designed to demonstrate that non-profit day centers can provide financially viable day programs and other respite and health-related services needed by people with dementia and their caregivers. The program consists of nineteen (19) RWJF funded projects, nine (9) of which are co-funded with AoA and nine(9) that are co-funded with AAI.

B. Increasing State Agency on Aging Leadership Capacity to Assist Alzheimer's Disease Victims and Their Families

Ongoing Project Activities: Continuing their AoA project activities, four (4) State Agencies on Aging are increasing their leadership capacity for making technical support and expert training available to organizations in the State that serve Alzheimer's Disease victims and their families.

3. PREVENTION AND ALTERNATIVES TO INSTITUTIONAL CARE

A. Housing and Supportive Services

Ongoing Project Activities: Third and final year continuation awards were made to four (4) projects funded in conjunction with the Robert Wood Johnson Foundation. These projects are designed to assist low-income elderly residents of public housing to purchase supportive services. Each project continued to provide supportive services and develop mechanisms for organizing and financing these services so they can eventually become self-supporting.

C. Quality Assurance for In-Home Supportive Services

Ongoing Project Activities: There has been a rapid increase in the need for and use of home care services by our aging society. The recent proliferation of providers, however, has heightened concern about the quality of care and the well-being and safety of older persons. To demonstrate ways of assuring higher standards of quality of in-home supportive services for older people AoA has made continuation awards to ten (10) State Agencies on Aging to develop and demonstrate model quality assurance systems. Some salient elements of these models are: intermediate sanctions to address substandard providers; consumer education and consumer feedback; regulatory requirements, licensure/sanctions; focus on prevention; use of long term care ombudsmen; use of volunteers as mediators; and self-advocacy.

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4. PROMOTION AND ENHANCEMENT OF EFFECTIVE COMMUNITY BASED SERVICE SYSTEMS

A. Community Systems Development Efforts

New Project Activities: Four (4) grant awards were made to State Agencies on Aging to encourage and support efforts to build responsive community based systems for older persons. Each State agency is focusing on one or more unmet service needs particularly critical to the older population of the State. The effort at both the State and local levels focuses on collaboration with other State and local agencies. One State is developing models for community focal points in rural areas while another is initiating programs to recruit, train, and retain long term care workers. A third project is focusing on the development of a community based adult day care program where currently no such program exists in the State. A fourth grantee is looking at solutions to the problem of broadening access to health care in a rural State.

B. Field Initiated Research And Demonstrations On Community Based Systems of Care

New Project Activities: Under the FY 1989 Discretionary Funds Program AoA made two (2) awards to promote more effective community based care to older persons. One project will determine the efficacy of using rural hospitals as community focal organizations working in conjunction with AAA's and senior centers to coordinate health and social services to older persons. The second project will demonstrate the efficacy of a state-wide health promotion campaign to prevent and treat diabetic retinopathy, particularly among high risk older populations.

Ongoing Project Activities: In FY 1989 AoA made six (6) continuation awards to projects that are developing an information and knowledge base on community based service systems. These research projects are analyzing current examples of planning and decision-making to determine those models which have been effective in developing comprehensive and coordinated systems of services for older persons. As a result, aging agencies at both the State and community levels should better understand what resources and abilities are required to exercise their leadership responsibilities.

Three (3) projects are employing different approaches and looking at different communities in assessing models for organizing and implementing community based systems of care. A fourth project is comparing and contrasting alternative methods of staffing and providing services to victims of elder abuse. Another project is examining models of State level long term care insurance programs, including a determination of whether it is feasible to include coverage for home and community care services. The sixth project is using site visits, interviews, and case study analyses to develop a guidebook that will identify and discuss the critical stages of development of community based systems of care for use by States and localities.

B. State Agency on Aging Leadership Roles for Elderly Housing

Ongoing Project Activities: Three State Agencies on Aging received a second year continuation grant to continue efforts to demonstrate effective models for State agency leadership in the housing area. State agencies are working at the State level to influence State actions. At the local level they are assisting their Area Agencies on Aging to develop comprehensive community based housing plans in several communities across the State.

C. Legal Assistance For Older Persons

Ongoing Project Activities: Legal assistance is an important means whereby older persons gain access to the range of opportunities and benefits available through their community service systems. AoA made continuation awards to six (6) organizations to provide national support to State and Area Agencies on Aging, legal services developers, and legal assistance providers for older persons. These projects are designed to make legal assistance more available to older persons, especially those with the greatest economic and social needs, and to coordinate legal assistance programs with the supportive services provided under Title III of the Older Americans Act. The grantees provide substantive case consultation and training in areas of the law of special importance to older persons. By funding these national legal assistance support projects, AoA helps to ensure that lawyers, paralegals, and others have the resources available to provide effective, high quality legal assistance to older persons in need.

Four State Agencies on Aging received awards to continue project activities concerned with the expansion or improvement of the delivery of legal assistance to older individuals. Two projects demonstrate the use of less restrictive alternatives in guardianship cases. The third project tests the feasibility of delivering legal assistance to homebound, rural older persons through a network of volunteer seniors and pro bono attorneys. The fourth project employs a needs assessment to improve its statewide system of using lay advocates in each county aging unit to provide legal assistance to older persons.

5. TARGETTING - STRATEGIC RESOURCE ALLOCATION

A. Alternatives To Guardianship

New Project Activities: In FY 1989 AoA made grant awards to three (3) new projects that are designed to encourage further development of alternatives to guardianship. One project will demonstrate a model of early intervention services for older persons in three (3) communities. This model will include: representee payee services; bill payer services; and the development of self-help materials on money management. A second project is developing a national training module on guardianship alternatives and support services for the aging network, including providers of aging, legal, social, and adult protective services. This module is being tested in three (3) States. The third project is developing a knowledge base about guardianship systems through a national survey of State practices in such areas as assignment and provision of guardianship services and the characteristics of adults affected by guardianship.

B. Developing Minority Elderly Agendas in National Organizations

New Project Activities: In FY 1989 AoA made five (5) awards to national organizations to develop or enhance their own knowledge of minority aging issues and to broaden their capacity to deal with the concerns of low income minority elderly on an on-going basis. In addition, these organizations are conducting the following activities: (1) creating a national network of Hispanic community-based groups committed to serving the elderly; (2) undertaking collaborative efforts between two national organizations, one of which serves the Black elderly, to develop local programs for the Black elderly using the resources of both organizations; (3) developing support, on a national level, to expand research initiatives focused on issues concerning minority elderly; (4) supporting State Minority Task Forces through training and technical assistance; (5) encouraging national organizations representing

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components of State governments to address minority elderly issues and; (6) training minority professionals to become leaders in the field of aging. An additional award was made to a national organization to support its efforts to be responsive to the needs of elderly Pacific/Asians.

Ongoing Project Activities: Three (3) national minority organizations addressing the interests of the Hispanic, Black, and Native American communities continued their AoA project activities in FY 1989. A significant part of these activities are focused on mobilizing community resources to provide a continuum of care for vulnerable older persons and to help them live as independently as possible.

C. Studies on Alcohol Abuse and Alcoholism Among the Aged

New Project activities: In FY 1989 AoA funded two (2) new projects to develop a knowledge base about the incidence and prevalence of alcoholism and alcohol-related problems among older people. Research activities include collection of data on such factors as drinking patterns, psychosocial behaviors, family relationships, life satisfactions, home environments, health, financial issues, and personal values. Outcomes of these projects will help State and local governments plan future programs focused on prevention, detection, and treatment of alcoholism among their older citizens. In addition, one of the projects is developing a computerized data base so that researchers will be able to investigate various issues related to alcohol-related problems among the Black elderly.

D. Research On Native American Aging

Ongoing Project Activities: Five (5) grantees continue their project activities designed to develop a knowledge base that will give AoA, and other appropriate organizations, a clearer understanding of the needs of older Native Americans and Native Hawaiians. These activities will also provide insight into how resources can be better targeted to these minority aging populations. Data are being collected on such factors as demographics; health, housing, and socio-economic conditions; and the availability and accessability of supportive services.

E. National Aging Resource Center on Elder Abuse

Ongoing Project Activities: The National Aging Resource Center on Elder Abuse (NARCEA) is led by the American Public Welfare Association working in collaboration with the University of Delaware and the National Association of State Units on Aging. Established in FY 1989, NARCEA serves as a resource of information, data, and technical expertise on elder abuse to State and local aging and adult protective service personnel, to other professionals and practitioners concerned with elder abuse, and to the public.

During its first year, NARCEA conducted informational and technical assistance workshops at nine conferences involving professional groups, aging and protective service agencies, and organizations representing service providers working in the field of elder abuse. The Center organized teleconferences in which eighty State Aging and Adult Protective Services personnel, representing thirty-three States, participated to identify training and technical assistance needs and existing resources. As a result, NARCEA published a report of the ten priority training and technical assistance needs identified thru the teleconferences and followed up with four Technical Assistance Memoranda to State Aging and Adult Protective Services Offices. In addition, the Center has developed a file which identifies, by State, resources such as training curricula, research findings, videos, and persons recognized to be experts in specific aspects of elder abuse research, training, and services.

NARCEA's principal mechanisms for information dissemination are *NARCEA EXCHANGE*, a quarterly newsletter, and the Clearinghouse on Abuse and Neglect of the Elderly (CANE). Three issues of *NARCEA EXCHANGE* were disseminated free of charge to 2,600 persons located in all fifty States, the District of Columbia, and the U.S. territories. CANE generated customized annotated bibliographies and filled requests for publications.

NARCEA concentrated its first year research efforts on developing a report which analyzes State elder abuse incidence data for the years 1986 thru to 1988.

F. National Resource Center on Minority Aging Populations

Ongoing Project Activities: The National Resource Center on Minority Aging Populations was established in FY 1989 as a collaborative effort between San Diego State University and the University of Southern California. The Center was established to serve as a national focal point for techical assistance, training, information dissemination, and short-term research. Its efforts are supporting States, communities, educational institutions, professionals in the field, and the public in understanding and responding to issues affecting minority elderly.

During FY 1989, the Center queried all States for their technical assistance and training needs and presented numerous workshops on a variety of minority aging issues. It developed a registry of resources for minority aging populations and created a computerized clearinghouse on minority aging. The Center began publication of a bi-monthly newletter, *The Minority Aging Exchange*. It published a Mini-Report on Targeting in the Older American Act and revised a previously written manual, "Enhancing Services to Minority Elderly Training Manual". The Center is responding to ad hoc technical assistance requests from State Agencies on Aging on a variety of issues related to minority elderly.

G. National Resource Center for Rural Elderly

Ongoing Project Activities: The National Resource Center for Rural Elderly was established in FY 1989 at the University of Missouri at Kansas City. Its technical assistance, training, information dissemination, and short-term research efforts are supporting States, communities, educational institutions, professionals in the field, and the public in understanding and responding to issues affecting the rural elderly.

The Center is serving as a national focal point for the identification of best-practice programs and services for the rural elderly in three primary focus areas (access/transportation, health/care coordination, andhousing/assisted living alternatives). The Center conducted workshops in the areas of access/transportation and needs assessments and also developed manuals in these areas for dissemination early in FY 1990.

The Center is publishing a bi-monthly newsletter and developed and disseminated a "Rural Elderly Bibliography." The Center is responding to ad hoc technical assistance requests from State Agencies on Aging on a variety of issues related to the rural elderly.

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SECTION V - EVALUATION

Section 206 of the Older Americans Act authorizes evaluation of the impact of programs funded under the Act, including their effectiveness in achieving stated goals. AoA's evaluation program in FY 1989 included the finalization of one project.

This evaluation, entitled "A Short Term Evaluation of the Visibility of Aging Services Systems at the Local Level", studied the strategies for increasing the visibility of aging services at the local level. The overall purpose of this study was to identify successful efforts that have been undertaken to increase public awareness, knowledge, and understanding of aging services at the local level.

The project also examined how these efforts have been implemented, characteristics of State and Area Agencies conducting these activities, State and Area Agencies' efforts to strengthen ties among services for older persons, and the impact of increased public awareness on the system of aging services within the community. The results of this evaluation are being considered by AoA as it develops initiatives in fulfilling AoA's goals and objectives.

Appendices

APPENDIX I

FY 1989 BUDGET
ADMINISTRATION ON AGING

Supportive Services and Senior Centers 1/ (amount includes $988,000 for Ombudsman)	$276,193,960
Nutrition Services 1/	
Congregate Nutrition Services 2/	355,793,410
Home-delivered Nutrition Services	78,419,355
In-Home Services for Frail Older Individuals	4,826,207
Grants to Indian Tribes	9,345,000
Grants to Native Hawaiians	1,365,000
Training, Research, and Discretionary Projects and Programs	22,253,068
TOTAL	$748,196,000

1/ Up to 10 percent of the funds for Supportive Services and Senior Centers and for Nutrition Services, may be used for Area Plan Administration.

2/ In accordance with Section 206(g) of the Older Americans Act, $75,000 of Congregate Nutrition Services funds were used for evaluation.

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APPENDIX II
FINAL FY 1989 TITLE III ALLOTMENTS

P.L. 100-436

STATES	PART B SUPPORTIVE SERVICES	PART C-1 CONGREGATE NUTRITION SERVICES 1/	PART C-2 HOME-DELIVERED NUTRITION SERVICES	PART D IN-HOME SERVICES FOR FRAIL OLDER INDIVIDUALS
Alabama	4,455,496	5,739,575	1,265,043	77,855
Alaska	1,383,200	1,781,840	392,730	24,170
Arizona 2/	3,425,527	4,412,768	972,604	59,856
Arkansas	3,072,008	3,957,365	872,231	53,680
California	25,559,872	32,926,261	7,257,182	446,633
Colorado	2,694,418	3,470,952	765,022	47,082
Connecticut	3,874,067	4,990,578	1,099,958	67,695
Delaware	1,402,436	1,806,620	398,192	24,506
Dist. of Col.	1,402,615	1,806,850	398,242	24,509
Florida	17,108,683	22,039,428	4,857,644	298,957
Georgia	5,433,179	6,999,028	1,542,635	94,939
Hawaii	1,430,727	1,843,065	406,224	25,000
Idaho	1,425,287	1,836,056	404,680	24,905
Illinois	12,770,263	16,450,669	3,625,842	223,147
Indiana	5,968,079	7,688,087	1,694,508	104,286
Iowa	3,756,790	4,839,502	1,066,660	65,646
Kansas	3,023,308	3,894,630	858,404	52,829
Kentucky	4,100,319	5,282,036	1,164,198	71,649
Louisiana	4,164,855	5,365,171	1,182,521	72,777
Maine	1,473,238	1,897,827	418,294	25,743
Maryland	4,318,573	5,563,192	1,226,166	75,463
Massachusetts	7,231,001	9,314,984	2,053,088	126,354
Michigan	9,500,077	12,238,011	2,697,343	166,004
Minnesota	4,711,263	6,069,055	1,337,662	82,324
Mississippi	2,868,719	3,695,487	814,511	50,128
Missouri	6,250,148	8,051,448	1,774,595	109,215
Montana	1,416,854	1,825,193	402,285	24,758
Nebraska	2,025,731	2,609,549	575,163	35,398
Nevada	1,424,522	1,835,071	404,463	24,892
New Hampshire	1,434,052	1,847,348	407,168	25,059

1/ As authorized by Section 206(g) of the Older Americans Act, $300,000 was withheld for evaluation of which $225,000 was reprogrammed to Title VI. The $300,000 is not included in the attached table.

2/ Includes amounts transferred for administering the interstate planning and service area from New Mexico and Utah.

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FY 1989 TITLE III ALLOTMENTS

P.L. 100-436

STATES	PART B SUPPORTIVE SERVICES	PART C-1 CONGREGATE NUTRITION SERVICES 1/	PART C-2 HOME-DELIVERED NUTRITION SERVICES	PART D IN-HOME SERVICES FOR FRAIL OLDER INDIVIDUALS
New Jersey	8,998,017	11,591,257	2,554,794	157,231
New Mexico 1/	1,430,121	1,842,284	406,052	24,991
New York	21,442,233	27,621,912	6,088,063	374,681
North Carolina	6,444,222	8,301,455	1,829,699	112,606
North Dakota	1,407,784	1,813,509	399,710	24,600
Ohio	12,077,344	15,558,050	3,429,103	211,039
Oklahoma	3,740,010	4,817,886	1,061,896	65,353
Oregon	3,145,840	4,052,474	893,194	54,970
Pennsylvania	15,732,839	20,267,063	4,467,002	274,915
Rhode Island	1,450,122	1,868,049	411,731	25,339
South Carolina	3,178,221	4,094,189	902,388	55,536
South Dakota	1,415,761	1,823,786	401,975	24,739
Tennessee	5,247,673	6,760,059	1,489,964	91,698
Texas	14,275,114	18,389,220	4,053,113	249,443
Utah 1/	1,437,901	1,852,305	408,261	25,127
Vermont	1,392,443	1,793,747	395,354	24,332
Virginia	5,444,244	7,013,282	1,545,776	95,133
Washington	4,553,989	5,866,455	1,293,008	79,576
West Virginia	2,442,202	3,146,047	693,411	42,675
Wisconsin	5,587,797	7,198,207	1,586,535	97,641
Wyoming	1,383,200	1,781,840	392,730	24,170
American Samoa	453,732	584,498	128,827	7,929
Guam	691,600	890,920	196,365	12,085
Puerto Rico	2,595,724	3,343,815	737,000	45,358
Trust Territory 4/	245,560	316,330	69,720	4,292
Virgin Islands	691,600	890,920	196,365	12,085
Northern Marianas	183,360	236,205	52,061	3,204
TOTAL	$276,193,960	$355,793,410	$78,419,355	$4,826,207

1/ Amounts reflect transfer to Arizona for interstate planning and service area.

4/ The following amounts were withheld in accordance with Public Law 99-239, Compact of Free Association: Part B - $446,040; Part C-1 - $574,590; Part C-2 - $126,645; and Part D - $7,793. A total of $1,155,068 which was reprogrammed to Title VI.

APPENDIX III

FY 1989 TITLE III ALLOTMENTS, AFTER TRANSFERS

P.L. 100-436

STATES	PART B SUPPORTIVE SERVICES	PART C-1 CONGREGATE NUTRITION SERVICES 1/	PART C-2 HOME-DELIVERED NUTRITION SERVICES	PART D IN-HOME SERVICES FOR FRAIL OLDER INDIVIDUALS
Alabama	4,413,218	5,572,753	1,474,143	77,855
Alaska	1,494,200	1,696,840	366,730	24,170
Arizona 2/	4,125,527	3,412,768	1,272,604	59,856
Arkansas	3,562,642	2,995,260	1,343,702	53,680
California	27,161,143	29,160,908	9,421,264	446,633
Colorado	3,306,083	2,507,047	1,117,262	47,082
Connecticut	3,721,363	3,955,891	2,287,349	67,695
Delaware	1,351,789	1,499,073	756,386	24,506
Dist. of Col.	1,675,855	1,533,610	398,242	24,509
Florida	20,756,691	16,128,489	7,120,575	298,957
Georgia	5,386,310	7,052,089	1,536,443	94,939
Hawaii	1,593,127	1,462,073	624,816	25,000
Idaho	1,586,394	1,516,442	563,187	24,905
Illinois	14,372,857	13,589,883	4,884,034	223,147
Indiana	5,968,079	6,364,505	3,018,090	104,286
Iowa	3,686,190	4,743,622	1,233,140	65,646
Kansas	3,023,308	3,647,446	1,105,588	52,829
Kentucky	4,207,743	4,437,513	1,901,297	71,649
Louisiana	4,627,450	4,761,660	1,323,437	72,777
Maine	1,473,238	1,069,755	1,246,366	25,743
Maryland	4,285,531	5,539,658	1,282,742	75,463
Massachusetts	7,411,190	6,712,730	4,475,153	126,354
Michigan	9,879,472	10,489,982	4,065,977	166,004
Minnesota	5,642,190	4,860,673	1,615,117	82,324
Mississippi	3,741,963	1,910,516	1,726,238	50,128
Missouri	6,264,887	6,881,744	2,929,560	109,215
Montana	1,435,071	1,596,927	612,334	24,758
Nebraska	2,025,731	2,609,549	575,163	35,398
Nevada	1,424,522	1,835,071	404,463	24,892
New Hampshire	1,688,623	1,072,677	927,268	25,059

1/ As authorized by Section 206(g) of the Older Americans Act, $300,000 was withheld for evaluation of which $225,000 was reprogrammed to Title VI. The $300,000 is not included in the attached table.

2/ Includes amounts transferred for administering the interstate planning and service area from New Mexico and Utah.

FY 1989 TITLE III ALLOTMENTS, AFTER TRANSFERS

P.L. 100-436

STATES	PART B SUPPORTIVE SERVICES	PART C-1 CONGREGATE NUTRITION SERVICES 1/	PART C-2 HOME-DELIVERED NUTRITION SERVICES	PART D IN-HOME SERVICES FOR FRAIL OLDER INDIVIDUALS
New Jersey	9,592,474	10,502,468	3,049,126	157,231
New Mexico 1/	1,430,121	1,842,284	406,052	24,991
New York	22,328,442	24,073,334	8,750,432	374,681
North Carolina	9,483,567	4,950,380	2,141,429	112,606
North Dakota	1,326,914	1,610,996	683,093	24,600
Ohio	13,407,095	12,726,723	4,930,679	211,039
Oklahoma	3,740,010	4,817,886	1,061,896	65,353
Oregon	3,627,100	2,988,162	1,476,246	54,970
Pennsylvania	18,732,839	17,267,063	4,467,002	274,915
Rhode Island	1,450,122	1,116,120	840,191	25,339
South Carolina	3,632,978	3,361,422	1,180,398	55,536
South Dakota	1,415,761	1,768,786	456,975	24,739
Tennessee	5,783,963	4,565,771	3,147,962	91,698
Texas	14,861,117	16,635,920	5,220,410	249,443
Utah 1/	1,592,523	1,468,343	637,601	25,127
Vermont	1,625,233	1,829,164	450,616	24,332
Virginia	7,156,056	4,179,345	2,667,901	95,133
Washington	5,099,936	4,217,913	2,395,603	79,576
West Virginia	2,606,429	2,366,820	1,308,411	42,675
Wisconsin	5,773,617	6,941,079	1,657,843	97,641
Wyoming	1,383,200	1,621,840	552,730	24,170
American Samoa	453,732	584,498	128,827	7,929
Guam	926,393	656,127	196,365	12,085
Puerto Rico	2,701,353	3,089,388	885,798	45,358
Trust Territory 4/	245,560	316,330	69,720	4,292
Virgin Islands	691,600	890,920	196,365	12,085
Northern Marianas	183,360	236,205	52,061	3,204
TOTAL	$302,543,882	$297,242,441	$110,620,402	$4,826,207

1/ Amounts reflect transfer to Arizona for interstate planning and service area.

4/ A total of $1,155,068 was withheld in accordance with Public Law 99-239, Compact of Free Association and reprogrammed to Title V

APPENDIX IV

NATIONAL TITLE III (OAA) PROGRAM DATA (FY'87-88): FINAL AS OF 09/28/89

PERSONS SERVED BY PROGRAM PART

		FY'87		FY'88	
III-B SUPPORT.SERVICES					
TOTAL PERSONS	=	8,565,023		8,221,663	
POOR	=	3,614,581	42 %	3,366,030	41 %
MINORITY	=	1,309,441	15 %	1,331,361	16 %
INDIAN	=	39,344	.5 %	42,976	.5 %
ASIAN	=	101,646	1.2 %	108,615	1.3 %
BLACK	=	877,486	10.2 %	892,470	10.9 %
HISPANIC	=	293,969	3.4 %	287,000	3.5 %
C1 CONGREGATE MEALS					
TOTAL PERSONS	=	2,780,101		2,748,985	
POOR	=	1,426,269	51 %	1,406,593	51 %
MINORITY	=	442,745	16 %	457,914	17 %
INDIAN	=	29,449	1.1 %	31,589	1.1 %
* ASIAN	=	43,717	1.6 %	49,069	1.8 %
BLACK	=	253,319	9.1 %	242,496	8.8 %
HISPANIC	=	115,261	4.2 %	134,780	4.9 %
C2 IN-HOME MEALS					
TOTAL PERSONS	=	715,891		745,397	
POOR	=	431,995	60 %	435,321	58 %
MINORITY	=	121,946	17 %	127,303	17 %
INDIAN	=	7,997	1.1 %	7,813	1.0 %
* ASIAN	=	4,661	.7 %	4,636	.6 %
BLACK	=	85,106	11.9 %	85,615	11.5 %
HISPANIC	=	26,182	3.6 %	29,243	3.9 %

NUMBER OF MEALS

		FY'87		FY'88	
TOTAL CONGREGATE	=	146,704,509		147,226,046	
TOTAL IN-HOME	=	85,897,229	37 %	94,658,561	39 %
TOTAL MEALS	=	232,601,738		241,884,607	

* TITLE III-C PARTICIPATION DATA FOR THE FORMER TRUST TERRITORY ARE NO LONGER REPORTED AS THEY RECEIVE ONLY TITLE III-B FUNDS UNDER A CONSOLIDATED GRANT. BOTH THE FY'87 AND FY'88 III-C DATA WERE THUS ADJUSTED, WHICH ACCOUNTS FOR THE REDUCED NUMBER OF ASIANS SHOWN ABOVE COMPARED TO PREVIOUS YEARS. ALL DATA IN THIS REPORT REFLECT THE LATEST REVISIONS FROM THE STATES FOR FY'87 AND THEREFORE MAY ALSO DIFFER IN OTHER RESPECTS FROM PREVIOUSLY PUBLISHED NATIONAL REPORTS FOR FY' 85-87.

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   NATIONAL SUMMARY OF TITLE III (OAA) PROGRAM DATA FOR FY'87-88

              PAGE 2 OF 3          FINAL DATA AS OF 09/28/89
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        ************************************************
        ADDITIONAL DATA FOR TITLE III-B SUPPORTIVE SERVICES
        ************************************************


 PERSONS SERVED
 **************
                                  FY'87               FY'88
 ACCESS                           -----               -----
 ------
 TRANSPORTATION       =        6,232,191           5,923,877
 OUTREACH             =        1,937,091           1,571,516
 INFO./REFERRAL       =        5,127,571           5,541,511
 OTHER                =        1,745,890           1,790,611

 IN-HOME
 -------
 HOME MAKER           =          635,745             736,718
 HOME HEALTH AID      =          131,220             138,531
 VISIT/ASSURANCE      =          856,720             937,873
 CHORE                =          190,114             169,355
 OTHER                =          213,628             295,776

 COMMUNITY
 ---------
 LEGAL                =          438,336             475,478
 ESCORT               =          179,029             148,721
 REPAIR/RENOVATION    =           57,923              70,939
 HEALTH               =        1,028,236             999,357
 OTHER                =        9,716,311          10,256,163


 SENIOR CENTERS/FOCAL POINTS
 ***************************

 TOTAL SENIOR CENTERS FUNDED
 FOR ACQUISITION/ALTERATION =      3,047               2,939

 TOTAL FOCAL POINTS         =      8,363               8,272

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    NATIONAL SUMMARY OF TITLE III (OAA) PROGRAM DATA FOR FY'87-88

             PAGE 3 OF 3             FINAL DATA AS OF 09/28/89
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           ADDITIONAL DATA FOR TITLE III-C NUTRITION SERVICES
           ************************************************

  STAFFING                              FY'87              FY'88
  ********                              -----              -----

  CONGREGATE PAID STAFF    =           26,930             30,136
  CONGREGATE VOLUNTEERS    =          217,452            212,575

  IN-HOME PAID STAFF       =           17,249             17,225
  IN-HOME VOLUNTEERS       =          134,267            139,163

  SITES/PROVIDERS
  ***************

  TOTAL CONGREGATE SITES   =           15,037             15,222
  TOTAL IN-HOME PROVIDERS  =            3,938              4,105

         **************************************************
                    OTHER TITLE III PROGRAM DATA
         **************************************************

 STATE AGENCY PAID STAFF   =            2,154              2,226

 NUMBER OF AREA AGENCIES   =              654                568

 AREA AGENCY PAID STAFF    =           12,338             13,515
 AREA AGENCY VOLUNTEERS    =           57,424             99,445

 TOTAL NON-TITLE III
 FUNDS POOLED              =    1,136,612,718      1,297,405,759

   FEDERAL SOURCES         =      419,589,155        423,803,145
   STATE SOURCES           =      485,437,141        552,921,791
   LOCAL SOURCES           =      231,586,422        323,683,653
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APPENDIX V

Administration on Aging

Number of Older Indians Eligible Under Title VI Part A
of the Older Americans Act, Fiscal Year 1980,
and Amount of Fiscal Year 1980 Grant
(Grants Effective 4-1-80 to 3-31-81)

REGION & STATE / TRIBAL ORGANIZATION	NUMBER OF OLDER INDIANS			AGE OF OLDER INDIAN CHOSEN BY TRIBE	FEDERAL FUNDS FY 1980 Incl Suppl.
	Over Age 60	Under Age 60	Total		
REGION I					
ME Passamaquoddy Tribe	115	60	175	55	44,136
ME Penobscot Indian Nation	267	75	342	55	38,411
STATE OF ME SUBTOTAL	382	135	517		82,547
RI Narragansett Indian Tribe	58	68	126	55	55,586
STATE OF RI SUBTOTAL	58	68	126		55,586
REGION I TOTAL	440	203	643		138,133
REGION II					
NY St. Regis Mohawk Tribal Community & Education Fund	657	0	657	60	49,861
STATE OF NY SUBTOTAL	657	0	657		49,861
REGION II TOTAL	657	0	657		49,861
REGION IV					
AL Poarch Band of Creek Indians	187	0	187	60	46,422
STATE OF AL SUBTOTAL	187	0	187		46,422
FL Seminole Tribe of Florida	120	1,614	1,734	60	44,136
STATE OF FL SUBTOTAL	120	1,614	1,734		44,136
MS Mississippi Band of Choctaw Indians	284	301	585	60	54,944
STATE OF MS SUBTOTAL	284	301	585		54,944
NC Eastern Band of Cherokee Indians	1,285	0	1,285	60	80,110
STATE OF NC SUBTOTAL	1,285	0	1,285		80,110
REGION IV TOTAL	1,876	1,915	3,791		225,612
REGION V					
MI Grand Traverse Band of Ottawa and Chippewa Indians	147	34	181	55	44,136
MI Inter-Tribal Council of Michigan	260	120	380	55	55,586
MI Keweenaw Bay Indian Community	105	66	171	55	44,136
MI Sault Ste. Marie Tribe of Chippewa Indians	691	211	902	55	80,110
STATE OF MI SUBTOTAL	1,203	431	1,634		223,968
MN Bois Forte Reservation Business Committee	86	51	137	50	38,411
MN Fond du Lac Reservation Business Committee	524	223	747	52	80,110
MN Leech Lake Reservation Business Committee	200	50	250	55	55,586
MN Lower Sioux Indian Community	40	13	53	55	38,411
MN Mille Lacs Band of Chippewa Indians	81	41	122	55	38,411
MN Minnesota Chippewa Resource Development	225	159	384	60	54,844
MN Red Lake Band of Chippewa Indians	292	61	353	55	55,586
MN White Earth Reservation Tribal Council	174	63	237	55	55,586
STATE OF MN SUBTOTAL	1,622	661	2,283		416,945

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Administration on Aging

Number of Older Indians Eligible Under Title VI Part A
of the Older Americans Act, Fiscal Year 1989,
and Amount of Fiscal Year 1989 Grant
(Grants Effective 4-1-89 to 3-31-90)

REGION & STATE	TRIBAL ORGANIZATION	NUMBER OF OLDER INDIANS			AGE OF OLDER INDIAN DEFINED BY TRIBE	FEDERAL FUNDS FY 1989 Incl. Suppl.
		Over Age 60	Under Age 60	Total		
WI	Bad River Band of Lake Superior Chippewa Indians	56	35	91	55	38,611
WI	Forest County Potawatomi Community	64	0	64	60	38,611
WI	Lac Courte Oreilles	66	64	130	60	38,611
WI	Lac du Flambeau Band of Lake Superior Chippewa Indians	200	0	200	60	40,061
WI	Menominee Indian Tribe of Wisconsin	310	92	402	55	53,500
WI	Oneida Tribe of Indians of Wisconsin	560	103	663	55	58,611
WI	Red Cliff Band of Lake Superior Chippewa	150	30	180	55	40,422
WI	St. Croix Tribal Council	103	0	103	60	44,130
WI	Stockbridge-Munsee Community	161	69	230	55	54,844
WI	Wisconsin Winnebago Business Committee	150	0	150	60	40,061
	STATE OF WI SUBTOTAL	1,796	380	2,180		462,094
	REGION V TOTAL	6,611	1,472	8,083		1,192,867
REGION VI						
LA	Institute for Indian Development	70	48	122	55	38,611
	STATE OF LA SUBTOTAL	70	48	122		38,611
MO	Eastern Shawnee Tribe of Oklahoma	67	37	104	60	38,611
	STATE OF MO SUBTOTAL	67	37	104		38,611
NM	Eight Northern Indian Pueblos Council (Picuris, etc.)	65	32	97	55	38,611
NM	Eight Northern Indian Pueblos Council (San Ildefonso, etc.)	64	36	100	55	38,611
NM	Five Sandoval Indian Pueblos, Inc.	129	41	170	55	54,844
NM	Jicarilla Apache Tribe	65	45	110	55	48,422
NM	Laguna Rainbow Corporation	607	0	607	60	71,606
NM	Mescalero Apache Tribe	165	0	165	60	48,422
NM	Pueblo de Cochiti	86	28	114	55	44,130
NM	Pueblo of Acoma	370	0	370	60	63,366
NM	Pueblo of Isleta	402	0	402	60	63,366
NM	Pueblo of Jemez	120	0	120	60	48,422
NM	Pueblo of San Felipe	111	0	111	60	48,422
NM	Pueblo of Taos	253	0	253	60	54,844
NM	Pueblo of Zuni	500	0	500	60	66,110
NM	San Juan Pueblo	100	0	100	60	48,422
NM	Santa Clara Pueblo	170	40	210	55	48,422
NM	Santo Domingo Pueblo Tribe	281	87	368	55	63,366
	STATE OF NM SUBTOTAL	3,686	330	4,016		880,774
OK	Apache Tribe of Oklahoma	348	33	381	60	63,366
OK	Caddo Tribe of Oklahoma	279	58	337	55	63,366
OK	Cherokee Nation of Oklahoma 1/	7,938	3,685	11,623	50	60,252
OK	Cheyenne-Arapaho Tribes of Oklahoma	314	325	639	55	71,606
OK	Chickasaw Nation	2,000	0	2,000	60	60,110
OK	Choctaw Nation of Oklahoma	3,181	1,045	4,226	55	60,110
OK	Citizen Band Potawatomi Indians of Oklahoma	310	0	310	60	60,110
OK	Comanche Indian Tribe	600	0	600	60	67,666
OK	Delaware Tribe of Western Oklahoma	300	0	300	60	63,366
OK	Iowa Tribe of Oklahoma	104	0	104	60	44,130
OK	Kaw Tribe of Oklahoma	66	0	66	60	38,611
OK	Kickapoo Tribe of Oklahoma 1/	300	0	300	60	60,100
OK	Kiowa Tribe of Oklahoma 1/	501	0	501	60	72,430

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OK Miami Tribe of Oklahoma	111	34	145	55	80,110
OK Muscogee (Creek) Nation	2,173	0	2,173	60	80,110
OK Osage Tribe of Oklahoma	750	375	1,125	55	80,110
OK Otoe-Missouria Tribe	214	0	214	60	54,844
OK Ottawa Tribe of Oklahoma	146	45	191	55	63,288
OK Pawnee Tribe of Oklahoma	312	0	312	60	63,288
OK Peoria Tribe of Oklahoma	170	50	220	55	71,880
OK Ponca Tribe of Oklahoma	98	0	98	60	38,411
OK Quapaw Tribe of Oklahoma	165	256	421	55	46,422
OK Sac and Fox Tribe of Indians of Oklahoma	384	0	384	60	55,566
OK Seminole Nation of Oklahoma	582	0	582	60	80,110
OK Seneca-Cayuga Tribe of Oklahoma	80	134	214	55	44,138
OK Wichita and Affiliated Tribes	312	25	337	55	56,566
OK Wyandotte Tribe of Oklahoma	380	100	480	55	67,038
STATE OF OK SUBTOTAL	23,101	6,515	29,616		1,704,838
TX Alabama-Coushatta Tribe	68	0	68	60	38,411
TX Texas Band of Kickapoo	66	0	66	60	38,411
STATE OF TX SUBTOTAL	134	0	134		76,822
REGION VI TOTAL	28,873	6,916	35,789		2,769,346
REGION VII					
KS Kickapoo Tribe in Kansas	58	24	82	60	38,411
KS Prairie Band of Potawatomi Indians	104	15	119	55	44,138
KS United Tribes of Kansas and Southeast Nebraska, Inc	115	15	130	60	44,138
STATE OF KS SUBTOTAL	277	54	331		126,687
NE Omaha Tribe of Nebraska	150	41	191	55	46,422
NE Santee Sioux Tribe of Nebraska	103	15	118	55	46,422
NE Winnebago Tribe of Nebraska	169	35	204	55	46,422
STATE OF NE SUBTOTAL	422	91	513		139,266
REGION VII TOTAL	699	145	844		265,953
REGION VIII					
CO Southern Ute Indian Tribe	102	23	125	55	46,422
CO Ute Mountain Ute Tribe of Indians	94	28	122	55	38,411
STATE OF CO SUBTOTAL	196	51	247		84,833
MT Assiniboine and Sioux Tribes	301	0	301	60	63,288
MT Blackfeet Tribe	1,486	0	1,486	60	71,880
MT Chippewa-Cree Tribe	206	0	206	60	54,844
MT Confederated Salish and Kootenai Tribes	530	0	530	60	67,038
MT Fort Belknap Community Council	108	0	108	60	46,422
MT Northern Cheyenne Tribe	300	0	300	60	55,566
STATE OF MT SUBTOTAL	2,931	0	2,931		358,942
ND Devils Lake Sioux Tribe	181	119	300	60	54,844
ND Standing Rock Sioux Tribe	383	0	383	60	55,566
ND Three Affiliated Tribes	150	223	373	60	63,288
ND Trenton Indian Service Area	138	0	138	60	44,138
ND Turtle Mountain Band of Chippewa Tribe	650	0	650	60	80,110
STATE OF ND SUBTOTAL	1,502	342	1,844		297,942
SD Cheyenne River Sioux Tribe	300	0	300	60	55,566
SD Crow Creek Sioux Tribe	143	0	143	60	46,422
SD Lower Brule Sioux Tribe	88	0	88	60	38,411
SD Oglala Sioux Tribe	1,083	0	1,083	60	80,110
SD Rosebud Sioux Tribe	505	0	505	60	71,880
SD Sisseton-Wahpeton Sioux Tribe	287	64	351	55	54,844
SD Yankton Sioux Tribe	212	0	212	60	54,844
STATE OF SD SUBTOTAL	2,658	64	2,722		401,985

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UT Uintah and Ouray Business Committee	114	120	234	50	46,422
STATE OF UT SUBTOTAL	114	120	234		46,422
WY Northern Arapaho Business Council	250	0	250	60	49,861
WY Wind River Nutrition and Transportation	137	64	201	55	46,422
STATE OF WY SUBTOTAL	387	64	451		96,283
REGION VIII TOTAL	7,768	661	8,429		1,286,227
REGION IX					
AZ Cocopah Indian Tribe	88	0	88	65	38,411
AZ Colorado River Indian Tribes	170	90	260	55	46,422
AZ Gila River Indian Community	120	0	120	60	44,130
AZ Hopi Tribal Council	666	0	666	60	90,110
AZ Hualapai Tribal Council	92	0	92	60	38,411
AZ Navajo Nation	601	0	601	60	90,110
AZ Pascua Yaqui Association	166	68	234	56	49,861
AZ Quechan Indian Tribe	77	57	134	50	46,422
AZ Salt River Pima-Maricopa Indian Community	245	40	285	55	49,861
AZ San Carlos Apache Tribe	90	30	120	55	38,411
AZ Tohono o'Odham Nation	727	276	1,003	55	38,738
AZ White Mountain Apache Tribe	212	0	212	60	49,861
STATE OF AZ SUBTOTAL	3,677	561	4,238		680,755
CA Bishop Indian Tribal Council	100	0	100	60	38,411
CA Blue Lake Rancheria	50	0	50	60	44,130
CA Covelo Indian Community Council	225	75	300	55	49,861
CA Hupa Health Association, Inc	104	0	104	60	46,422
CA Indian Elders Council, Senior Programs	70	0	70	60	38,411
CA Karuk Tribe of California	800	0	800	60	44,130
CA Pi-Ma-Pu Indian Health Consortium, Inc.	60	0	60	60	38,411
CA Picayune Rancheria	60	0	60	60	38,411
CA Riverside-San Bernardino County Indian Health-for Morongo	437	55	492	56	49,861
CA Riverside-San Bernardino County Indian Health-for Pechanga, etc.	316	50	366	55	49,861
CA Riverside-San Bernardino County Indian Health-for Soboba	251	142	393	55	49,861
CA Sonoma County Indian Health Project	150	0	150	60	46,422
CA Southern Indian Health Council-Area II	102	0	102	60	49,861
CA Southern Indian Health Council-Area I	120	0	120	60	46,861
CA Toiyabe Indian Health Project	110	30	140	55	46,422
CA Tule River Indian Health Center	94	60	154	50	38,411
CA United Indian Health Services (for Smith River, etc.)	72	10	82	55	38,411
CA United Indian Health Services, Inc. -for Resighini	62	14	76	55	38,411
STATE OF CA SUBTOTAL	3,006	482	3,488		788,561
NV Fallon Paiute-Shoshone Tribes	68	0	68	60	38,411
NV Inter-Tribal Council of Nevada, Inc. (Duckwater, etc.)	150	0	150	60	46,422
NV Inter-Tribal Council of Nevada, Inc. (Fort McDermitt, etc.)	56	0	56	60	38,411
NV Inter-Tribal Council of Nevada, Inc. ([illegible], etc.)	119	0	119	60	46,422
NV Shoshone-Paiute Tribes	118	5	123	59	46,422
NV Walker River Paiute Tribe	119	0	119	60	44,130
NV Washoe Tribe of Nevada and California	109	54	163	55	46,422
NV Yerington - Paiute Tribe	66	27	93	50	38,411
STATE OF NV SUBTOTAL	805	86	891		345,087
REGION IX TOTAL	7,488	1,112	8,604		1,741,383

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REGION X

AK Aleutian/Pribilof Islands Association	130	20	150	55	48,881
AK Association of Village Council Presidents	1,276	0	1,276	60	67,038
AK Bristol Bay Native Association	311	0	311	60	55,586
AK Central Council, Tlingit and Haida Indian Tribes of Alaska	900	0	900	60	61,311
AK Cook Inlet Tribal Council	1,080	0	1,080	60	67,038
AK Copper River Native Association	111	0	111	60	44,138
AK Kenaitze Indian Association	88	0	88	60	38,411
AK Kodiak Area Native Association (Northern Section)	91	20	111	55	38,411
AK Kodiak Area Native Association (Southern Section)	76	15	91	55	38,411
AK Metlakatla Indian Community	85	0	85	60	38,411
AK Native Village of Barrow	104	0	104	60	44,138
AK Tanana Chiefs Conference for Kuskokwim Subregion	106	21	127	55	44,138
AK Tanana Chiefs Conference for Lower Yukon Subregion	125	44	169	55	44,138
AK Tanana Chiefs Conference for Yukon Flats Subregion	104	30	134	55	44,138
K Tanana Chiefs Conference for Yukon Koyukuk Subregion	159	75	234	55	48,881
K Tanana Chiefs Conference for Yukon Tanana Subregion	117	17	134	55	44,138
STATE OF AK SUBTOTAL	4,483	342	4,705		789,151
D Coeur d'Alene Tribe of Idaho	78	20	98	55	38,411
ID Nez Perce Tribe of Idaho	164	0	164	60	48,422
ID Shoshone-Bannock Tribes	398	0	398	60	52,244
STATE OF ID SUBTOTAL	640	20	660		139,077
OR Confederated Tribes of Siletz Indians of Oregon	118	185	303	55	44,138
OR Confederated Tribes of Warm Springs	114	0	114	60	46,418
OR Confederated Tribes of the Umatilla Indian Reservation	301	0	301	60	63,288
STATE OF OR SUBTOTAL	533	185	718		153,820
WA Colville Confederated Tribes	468	0	468	60	61,311
WA Lower Elwha Klallam Tribe	60	20	80	55	38,411
WA Lummi Indian Business Council	304	86	390	55	48,881
WA Makah Indian Tribal Council	74	36	110	50	48,422
WA Muckleshoot Indian Tribe	156	16	172	55	48,422
WA Nooksack Indian Community Aid Soc.-for Upper Skagit & Sauk-Suiattle	53	17	70	55	38,411
WA Nooksack Indian Community Aid Society for Stillaguamish	59	38	97	45	38,411
WA Nooksack Indian Tribe	52	11	63	55	48,422
WA Puyallup Tribal Health Authority	453	1,326	1,779	45	71,888
WA Quinault Indian Nation	178	51	229	55	48,422
WA South Puget Intertribal Planning Agency-for Chehalis & Nisqually	130	30	160	55	44,138
WA South Puget Intertribal Planning Agency-for Skokomish & Squaxin Is	156	48	204	55	44,138
WA Swinomish Indian Tribal Community	52	32	84	55	38,411
WA Upper Columbia United Tribes	196	60	256	55	48,422
WA Yakima Indian Nation	60	10	70	55	38,411
STATE OF WA SUBTOTAL	2,367	1,786	4,153		686,287
REGION X TOTAL	7,903	2,243	10,136		1,757,865

1/ Cherokee Nation of Oklahoma received an additional $142 because of a technical adjustment.

2/ Kickapoo Tribe of Oklahoma received an additional $60 because of a technical adjustment.

3/ Kiowa Tribe received an additional $16,844 to correct a discrepancy in the FY 1988 older count.

NOTES -

Ages of 'Older Indian'

The Title VI grant was based on the number of Indians age 60 years or over in the grantee's Title VI service area. Title VI funds may be used to serve 'older Indians' either over or under age 60.

Tribes selected age of 'older Indians' as follows:

82 Tribes retained age 60
(includes one Tribe which served only those over 60)

99 Tribes selected an age under 60:
1 Tribe selected age 59
79 Tribes selected age 55
16 Tribes selected age 50
1 Tribe selected age 52
2 Tribes selected age 45

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181 Tribes received a grant from Fiscal Year 1990 Funds

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APPENDIX VI

Annual Statement of Goals
Administration on Aging
Fiscal Year 1990

Introduction

In the year 1990, the nation will celebrate the 25th Anniversary of the Older Americans Act of 1965. In the 1987 Amendments to the Older Americans Act, the Administration on Aging was directed to annually publish goals for the coming fiscal year, beginning in Fiscal Year 1989. It is altogether fitting and appropriate that, as we approach the last decade of the 1990's and the Silver Anniversary of the Older Americans Act, we begin to expand our goal efforts and begin preparing our society to address policy issues which will certainly carry over through the 1990's and beyond, into the 21st Century. It is important that our society becomes focused on the need to build adequate capacity to respond to the dramatic increases in the older population during the next century.

It is our intent to expand that effort; to respond more substantively and relevantly to the needs, not only of older persons, but also of the nation-wide aging network which was established to assure their needs are met. These efforts will be specifically directed toward FY 1990 and beyond, into the 21st Century.

Following a developmental process which has been characterized by continuing dialogue with advocacy and interest groups in the field of aging including discussions with State Directors on Aging, with Area Agency Directors, service providers, the academic community, the Federal Council on Aging and with representatives of the Leadership Council of Aging Organizations
the Administration on Aging (AoA) has selected eight areas of major activity in which goals have been established for Fiscal Year 1990 and beyond.

Older Americans Act - Goals for 1990 and Beyond

1. **Public/Private Partnerships** - Increase awareness within both the public and private sectors of the challenge of the changing demographics, and stimulate the expansion of services and resources for older persons by promoting public/private sector partnerships.

2. **Older Persons as a Resource** - Promote the recognition of older persons as a resource to themselves, to their community, and to the nation.

3. **Strengthening the Family and Generational Bonding** - Increase understanding of the societal implications of aging, with particular attention to the development and implementation of strategies for strengthening the family and the interdependence of generations.

4. **Prevention and Alternatives to Institutional Care** - Promote the recognition of the importance, and the development, of preventive, in-home and community-based supportive services as vital components of the continuum of care.

5. **Promotion and Enhancement of Effective Community Based Service Systems** - Promote and support the continued strengthening of comprehensive and coordinated community service systems to insure that such services are available, accessible, and acceptable to older persons.

6. **Targetting - Strategic Resource Allocation** - Develop and implement new strategies for more effectively targetting resources and programs on the needs of the most vulnerable older persons, with special emphasis on low-income minority elderly.

7. **Manpower Development** - Increase awareness of, and promote action to relieve, the critical manpower needs in the field of aging, with particular attention to the need for an adequate supply of trained personnel to care for older persons at home, in the community and in nursing homes.

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8. **Preparing for the 21st Century - Challenges and Opportunities of an Aging Society** - Promote public information and technical assistance to targetted groups for better decisions which need to be made now to insure that public, voluntary and private sector organizations are responsive to the resources and needs presented by the increasing numbers of older persons during the first decades of the 21st century.

Conclusion

The Administration on Aging recognizes that, even beyond the many specific actions which are required to achieve the eight goals outlined above, more needs to be done in the areas of policy decisions and program activities to assure the well-being of the nation's older persons during the last decade of this century and the initial decades of the next century. Nevertheless, we believe that the agenda which these eight goals establish comprises a realistic projection of what, working together, the Administration on Aging and the field of aging can begin to accomplish, given the resources which will be available as the decade of the 1990's begins. Our overall mission remains what it has been all along - to make life better for the millions of older persons whom we serve. We are committed and dedicated to making a difference on behalf of older persons. In this we need the help of all concerned citizens in the public, private and voluntary sectors across the nation.

Joyce T. Berry

Joyce T. Berry, Ph.D.
Acting Commissioner on Aging

COMPENDIUM
OF
ADMINISTRATION ON AGING
ACTIVE GRANTS
UNDER TITLE IV OF THE OLDER AMERICANS ACT

SEPTEMBER 30, 1989

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AGING POPULATION CHARACTERISTICS/NEEDS
Research

90AR0104
United Way of America
701 North Fairfax Street
Alexandria, VA 22314
Preparation for an Aging Society: Future Needs, Programs, and Personnel Requirements
James Morrison
(703) 683-7887
09/30/86 - 02/28/90 AoA : $ 175,000 $ 204,191 $ 0
AGING POPULATION CHARACTERISTICS/NEEDS

United Way, in collaboration with The Futures Group, will train local United Way Organizations (LUWO) and Area Agencies on Aging, and others on how to use the computer forecasting model developed in an earlier phase of the project. The model and other planning techniques will assist communities in planning for the needs of an aging population. The program has two-phases. In phase one, the model will be introduced to LUWO and AAA staff in ten communities. Project staff will assist local planners to identify and input local data into the model and to begin to adapt and utilize the model in their communities.

In phase two, communities selected for phase one will host workshops for planners from as many as 30 additional communities in their region. During the workshops the model will be introduced as a planning tool. Participants will be guided through its use and will receive training in leadership and strategic planning, with special emphasis on the needs of the elderly.

AGING POPULATION CHARACTERISTICS/NEEDS
Research

90AR0111
Alulike, Inc.
1024 Mapunapuna St.
Honolulu, HI 96819-4417
Native Hawaiian Elderly Needs Assessment Project
Anthony Lenes
(808) 836-8940
08/01/88 - 03/31/90 AoA : $ 0 $ 100,000 $ 0
AGING POPULATION CHARACTERISTICS/NEEDS

The goal of this project is to complete a needs assessment study on Native Hawaiian Elderly. Objectives are to review and update baseline data and to complete, publish and disseminate the study. Methods used will: review extent and generate non-existant data; conduct surveys, and focus groups; and establish priorities to improve service delivery and program development. Results will be: (1) an Annotated Bibliography on Native Hawaiian Elderly Data; (2) a Focus Group Report; (3) a Report Overview of Exemplary Native American and Non-Native American Programs for Elderly; and (4) the Native Hawaiian Elderly Needs Assessment Project Study Report.

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AGING POPULATION CHARACTERISTICS/NEEDS
Research

90AR0117
University of Kansas
316 Strong Hall
Lawrence, KS 66045-2966
Defining and Meeting the Needs of Native American Elders
Robert John
(913) 864-4130
09/01/88 - 03/31/90 AoA : $ 0 $ 99,996 $ 0
AGING POPULATION CHARACTERISTICS/NEEDS

This project will compile and analyze a comprehensive data base on Native American aging using 12 national and tribal level survey data sets collected using the Older Americans Resources and Services survey instrument. Statistical analysis will determine elders' current social, economic, mental and physical well-being, ability to perform routine activities of daily living need for 19 services, and the availability of informal/formal support to meet those needs. Results will be provided to other levels of the aging policymaking and social service networks in order to increase their knowledge about Native American elders. Major products include: (a) a comprehensive data base; (b) a description of each group of tribal elders; (c) formulation of a tribal-specific service plan; (d) consultation with tribal groups to discuss these specific service plans and; (e) final report with identification of knowledge gaps and recommendations for follow-up study and action.

AGING POPULATION CHARACTERISTICS/NEEDS
Research

90AR0118
Public Health Foundation of Los Angeles County, Inc.
13200 Crossroads Parkway North #135
City of Industry, CA 91746
Study on Urban American Indian Aging (SUAMIMA)
Betty Jo Kramer
(213) 699-7320
09/01/88 - 03/31/90 AoA : $ 0 $ 99,426 $ 0
AGING POPULATION CHARACTERISTICS/NEEDS

Little is known about the urban Native American elderly although 73% of American Indians live off reservations. This research project will compile sparse but valuable information about the older American Indians from the following data bases: (1) results of academic and applied research; (2) surveys of service providers in selected urban areas with significant American Indian populations; (3) surveys of selected urban American Indian organizations; and (4) results and/or data from Federally funded demonstration projects which have targeted or incidentally served this population. The result will be a comprehensive research data bank which will be analyzed for demographic information, documented needs for support services, and availability and access to those support services. Research questions addressed by this project focus on practical applications for planning and delivering support services to this urban minority population. A final report will disseminate research findings, recommend an agenda for future research, identify gaps in services, discuss methods and approaches for providing programs, and address public policy issues.

AGING POPULATION CHARACTERISTICS/NEEDS
Research

90AR0119
University of North Dakota
Center for Rural Health
501 Columbia Road
Grand Forks, ND 58201
An Assessment and Evaluation of Native American Aging Research
Jack Geller , Ph.D.
(701) 777-3848
09/01/88 - 02/28/90 AoA : $ 0 $ 95,413 $ 0
AGING POPULATION CHARACTERISTICS/NEEDS

The Center for Rural Health in collaboration with the Indians Into Medicine Program (INMED), the University of North Dakota School of Medicine proposes to identify, evaluate, and synthesize the current knowledge and data base on the status of the Native American elderly in the IHS Aberdeen Service Area (North Dakota, South Dakota, Nebraska, and Iowa). This project will systematically identify and assess all published literature and quantitative data for the purpose of identifying significant knowledge and data gaps on the Native American elderly. These gaps in knowledge and data will then be prioritized and a future research agenda on Native American aging will be recommended. Expected products from the project, other than the research agenda, include a current bibliography on Native American aging as well as a reference manual of inventoried data specifying its location, description, and evaluation.

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PROJECT	FUNDING FY 1987	FY 1988	FY 1989

ALZHEIMER'S DISEASE
Demonstration

90AM0257
Colorado Department of Social Services
Aging and Adult Services
1575 Sherman Street
Denver, CO 80203-1714
Aging Network Linkages: Increasing State and AAA Capabilities for Training and Service Coordination Related to Alzheimer's Disease
Tom Koval
(303) 294-2861
08/01/87 - 12/31/89 AoA : $ 149,808 $ 148,456 $ 0
ALZHEIMER'S DISEASE:
Community-based Care Systems Development/Improving Linkages

Under this project, the Colorado State Agency on Aging is leading a State-wide effort aimed at increasing coordination and efforts of Area Agencies on Aging (AAAs) and their associated service provider networks in meeting the needs of Alzheimer's Disease victims and their caregivers. Two collaborating organizations, Colorado State University and the Alzheimer's Disease and Related Disorders Association (DENVER chapter), are educating AAA staff about intervention strategies to implement early in the progress of the disease (family support groups, adult day care, and respite care). In turn, the AAAs are taking the role of training family members and staff of service provider agencies in the use and efficacy of these interventions as alternatives to costly institutional care.

ALZHEIMER'S DISEASE
Demonstration

90AM0315
Cedar Acres Adult Day Care Center
1700 South River Road
Janesville, WI 53545
Cedar Acres Adult Day Care Center
Lois Oliver
(608) 756-8144
08/01/88 - 07/31/90 AoA : $ 0 $ 66,283 $
ALZHEIMER'S DISEASE:
Supportive Services

This project, funded by AoA in collaboration with the Robert Wood Johnson Foundation, will result in the expansion of services to Alzheimer's Disease clients and their families. The funds provided by AoA will provide the necessary staff needed to expand the Center's hours of service on week-ends (year 01) and evenings (year 02) and to provide transportation to current and prospective clients and their families beginning in year 01.

ALZHEIMER'S DISEASE
Demonstration

90AM0317
Senior Services, Incorporated
Dementia Day Care Center
836 Oak Street, Suite 320
Winston-Salem, NC 27101
Senior Services Dementia Care Center (RWJF)
Mr. Richard Gottlieb
(919) 725-0907
08/01/88 - 12/31/89 AoA : $ 0 $ 48,263 $ 0
ALZHEIMER'S DISEASE:
Supportive Services

The purpose of this project, funded by AoA in collaboration with the Robert Wood Johnson Foundation, is to design and implement a dementia-specific day care center. The grantee will undertake: (1) a market survey; (2) support and technical assistance with the architectural designs; (3) diagnois and treatment of participants; (4) staff training; and (5) education and support of caregivers. The center will also serve as a combination day health/day care program.

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ALZHEIMER'S DISEASE
Demonstration

90AM0322
Handmaker Jewish Nursing Home for the Aged
Adult Day Health Services
2221 North Rosemont
Tucson, AZ 85712
Dementia Care and Respite Care Programs
Doris Goldstein
(602) 881-2323
08/01/88 - 02/28/90 AoA : $ 0 $ 79,642 $ 0
ALZHEIMER'S DISEASE;
Supportive Services

This project, funded by AoA in collaboration with the Robert Wood Johnson Foundation (RWJF), will expand the services of the Handmaker Center by augmenting the staffing of the program in conjunction with the RWJF award which will provide funds for: (1) the addition of a new center in the growth area of the community where no dementia-related day health care program exists; (2) a community-based respite care center providing service Wednesdays and Saturdays from 6:00 to 10:00 p.m., and Sundays from 10:00 a.m. to 6:00 p.m.; (3) the enhancement of its assessment process; and (4) the enhancement of its services to caregivers. When these new services are in place, the total program will include adult day health care at multiple locations, in-home respite services, institutional respite services, community respite services, family support programs and dementia-specific educational programs.

ALZHEIMER'S DISEASE
Training

90AM0269
South Carolina Commission on Aging
Division of Education and Information Service
400 Arbor Lake Drive, Suite B-500
Columbia, SC 29223
Training for Professionals and Paraprofessionals in Services for Alzheimer's Disease and Related Disorders
Kay Mitchell
(803) 734-3203
09/01/87 - 05/31/90 AoA : $ 149,109 $ 149,794 $ 0
ALZHEIMER'S DISEASE;
Continuing Education and Training for Professionals and/or Paraprofessionals

This project is providing training on care of Alzheimer's Disease patients for administrators and caregivers in institutional, community and in-home settings. Components of the twenty-four month project include three one-day symposia for nursing home administrators and management staff on planning of care for Alzheimers patients; development of an instructional package that includes a manual and videotape to be used in a six hour teleconference; development of training teams in the ten districts served by Area Agencies on Aging; and use of training teams to train paraprofessional aides on patient management.

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Demonstration

90AM0276
Southwestern Connecticut Agency on Aging, Inc.
276 Park Avenue
Bridgeport, CT 06604
Bridge to Health
Eileen Lindner
(203) 333-9288
09/01/87 - 12/31/89 AoA : $ 149,139 $ 0 $ 0
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES;
Supportive Services;
Health Promotion/Health Education

The "Bridge to Health" project will create a new, more effective system of providing health care services to the hard-to-reach elderly in the city of Bridgeport, utilizing the Bridgeport Community Health Center (BCHC) as a point of entry. The goals of the project are: to provide a continuum of care for the elderly between hospital-based and community-based services; to develop a coordinated referral system within the elderly health care network, and to evaluate results and encourage replication in other communities. The project will provide outreach and identification of eligible persons, medical and social services at indigenous outreach sites, identification cards stating status as BCHC patients and liaison with Bridgeport Hospital and other community-based services.

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Demonstration

90AM0281
New York City Department for the Aging
2 Lafayette Street
New York, NY 10007
Hospital Emergency Services and Linkages to Community Aging Services
Joseph Barnes
(212) 577-8456
09/01/87 - 06/30/90 AoA : $ 174,762 $ 0 $
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES;
Supportive Services;
Health Care/Services - Physical

The purpose of the project is to develop a model of formal linkages between hospital emergency rooms and community aging services in order to assist older persons who are not admitted to the hospial but require some support to return home. The expected outcomes include: (1) a replicable strategy for linking hospital emergency rooms and aging service systems; (2) reduction in inappropriate hospital admissions; and (3) replicable methods to identify and aid older persons who use hospital emergency rooms for non-medical reasons. Products will include: (1) model of hospital emergency room and community services linkages; (2) case finding and referral tools and criteria; and (3) the instruments to identify elderly emergency room users for non-medical reasons.

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Demonstration

90AM0371
Idaho Office on Aging
Statehouse
Room 108
Boise, ID 83720
Community Councils for Aging Resources/Community-Based Adult Day Care
Charlene Martindale
(208) 334-3833
09/30/89 - 09/29/91 AoA : $ 0 $ 0 $ 199,117
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES;
Supportive Services

The purpose of this project is to demonstrate that a group of community leaders (community council) with the leadership and guidance of the SUA and local AAA, can mobilize a community to identify needed community services by the elderly, raise community money, identify and line-up community services and goods and, through these efforts, meet the identified community service need. The service identified by this grantee that the Council will seek to implement through raising needed resources is adult day care. The Community Council on Aging Resources (CCAR) will gather the necessary resources to open and operate an adult day care center in a shopping mall in Pocatollo. The CCAR will then be replicated state-wide as tools for AAA systems building. A training manual on the development and utilization of a CCAR will be produced as a result of the project.

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Demonstration

90AM0383
National Caucus and Center on Black Aged
1424 K Street, N.W.
Suite 500
Washington, DC 20005
Developing Low Income Minority Elderly Agendas in National Organizations
Samuel Simmons
(202) 637-8400
09/30/89 - 09/29/91 AoA : $ 0 $ 0 $ 150,000
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES

This project will target six to eight cities for development of activities to support three specific programs in this cooperative project of AARP and the National Caucus on the Black Aged. AARP will provide staff volunteers and printed material in the three program areas of Health, Income Security and Wellness Promotion in cooperation with the efforts of the National Caucus and Center on the Black Aged to develop low income minority elderly agendas in national organizations. This effort will demonstrate methods to increase elderly black participation in private, non-profit and government sponsored programs. The benefits and results of the project aim to increase the participation of aged blacks in Older Americans Act supportive and nutrition services programs by 10% in the six to eight demonstration localities to be selected for project activity.

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FY 1987 FY 1988 FY 1989

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Demonstration

90AM0384
Tennessee Hospital Association
500 Interstate Boulevard, South
Nashville, TN 37210
Three Rural Hospitals into Focal Organizations with Co-Location
Charles Oakes , Ph.D.
(615) 256-8240
09/30/89 - 09/29/91 AoA : $ 0 $ 0 $ 143,467
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES;
Health Care/Services - Physical

The purpose of this project is to demonstrate the efficiency and efficacy of rural hospitals as focal organizations within the community that coordinate services for older persons. Co-located at the hospital sites, aging network liaison workers will participate in discharge planning, provide information, make referrals, and disseminate materials on health promotion and disease prevention to older persons who are discharged from the hospital or who are out-patients. Three hospitals will be utilized as demonstration sites and will work with senior centers and AAAs in their communities in an effort to join the medical and social models of care for the benefit of older people. It is anticipated that this model will provide continuity of, and access to, community-based care for rural elderly persons.

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Research

90AR0103
Jewish Federation Council of Greater Los Angeles
6505 Wilshire Boulevard
Los Angeles, CA 90048
Community Based and In-Home Services for the Frail Elderly - A Cooperative Cities Program
Saul Andron, Ph.D.
(213) 852-1234
08/01/86 - 07/31/90 AoA : $ 60,000 $ 45,000 $ 0
OPPL : $ 80,000 $ 34,500 $ 0
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES;
Other

The purpose of this project is the transfer of international innovations between Israel and the United States. The cities of Los Angeles and Jerusalem will be linked in a series of exchanges concerning long term care for the frail and economically disadvantaged elderly. Joint seminars, workshops and meetings will be held. Delegations will be exchanged for study visits. Project should result in joint planning and demonstration projects; testing of effective service delivery models and a practice guide focusing on community-based service delivery.

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Research

90AR0111
University of Southern Maine
Human Services Development Institute
96 Falmouth Street
Portland, ME 04103
National Study Comparing Successful Community-Based Systems of Care for Older People
Richard H. Fortinsky, Ph.D.
(207) 780-4430
09/01/88 - 08/31/90 AoA : $ 0 $ 197,929 $ 199,981
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES

The purpose of this research is to help communities determine how to build successful systems of care for the elderly using their own local resources and talents. This national research project will compare three different models of coordinated and comprehensive community-based systems of care for the elderly. The models are distinguished by the type of organization that has taken the lead in building a system: (1) Area Agency on Aging; (2) acute care hospital; and (3) residential facility for the elderly. A total of 12 communities will be studied, including four representing each type of organization. Products will include a video, a guide-to-practice series, training curricula, and a national teleconference series based on the training materials, for community leaders wishing to replicate successful models.

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Research

90AR0112
University of Alabama
Institute for Social Science Research
P.O. Box 2846
Tuscaloosa, AL 35487-2846
A Network Approach to the Assessment and Development of Comprehensive Coordination in Delivery of Community-Based Services to the Elderly
John M. Bolland, Ph.D.
(205) 348-5152
09/01/88 - 08/31/90 AoA : $ 0 $ 200,000 $ 200,000
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES

This project will conduct an analysis of the delivery of elder services in six Alabama Planning regions. Plans are to model the flow of services through organizations located in the region, to evaluate the impact of coordination on services within each region, and to examine the policy networks that set the health and human service agenda within the region. The project will implement a network development program in each region, through which results are systematically shared with participants in the study. Outcomes will include six profiles, one for each of the six planning regions.

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Research

90AR0113
SAVANT, Inc.
1640 Stowe Road, Ste. 200
Reston, VA 22094
Analysis of Community-Based Systems of Care
Alan F. Ackman
(703) 689-4848
09/01/88 - 08/31/90 AoA : $ 0 $ 198,577 $ 200,000
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES

SAVANT, and NASUA a subcontractor, will conduct this study to: (1) describe alternative models for community systems of care which have been successfully implemented; (2) compare and contrast their operations; and (3) promote findings to other communities. Ten communities will be reviewed, each representing different approaches for organizing a system of care. The outcomes will include a set of models for State/Area Agencies on Aging and useful information for older persons to advocate for improved community care.

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Research

90AR0114
University of Southern California
Andrus Gerontology Center
University Park MC 0191
Los Angeles, CA 90089-0191
Community-Based Systems of Care: A Longitudinal Study of Diverse Communities
Kathleen Wilbur, Ph.D.
(213) 743-4764
09/01/88 - 08/31/90 AoA : $ 0 $ 192,033 $ 197,414
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES

This study will examine the effectiveness of community-based systems of care, nationwide, by using the longitudinal approach of historical analysis, surveys, case studies, and review panels. The proposed outcome will be a guidebook addressing critical aspects of community-based systems of care for use by State and local communities which will be disseminated to all SUAs and AAAs.

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PROJECT **FUNDING**
FY 1987 **FY 1988** **FY 1989**

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Research

90AR0116
University of Maryland at College Park
Center on Aging
PERH Building Room 2304
College Park, MD 20742-2611
Field Initiated Research on Community-Based Care
Mark R. Meiners
(301) 454-5393
09/01/88 - 08/31/90 AoA : $ 0 $ 200,000 $ 160,908
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES

This research project will complement a program recently undertaken by the Robert Wood Johnson Foundation to help eight States promote long-term care insurance. The working hypotheses include examination of whether a data system on State-specific long-term care utilization and cost patterns can be developed from existing sources that, when supplemented with selective data collection, can be used to model insurance programs, and also whether home and community care services can be treated as insurable events. The research will assist States to create a data base capable of supporting an insurance program which not only includes home and community-based services but also coordinates the entire spectrum of services which are required to assist elders to remain in their homes.

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Technical Assistance

105891012
National Council on Aging, Inc.
West Wing 100
600 Maryland Avenue, S.W.
Washington, DC 20024
Technical Assistance to Develop Community Based Focal Points
Lorraine Lidoff
(202) 479-1200
09/26/89 - 03/25/91 AoA : $ 0 $ 0 $ 196,199
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES;
Supportive Services

Under this contract, NCOA will provide technical assistance and training for the further development and expansion of community focal points. The contract includes developing a brochure on community focal points for State/Area Agencies on Aging, service providers, and the general public. NCOA materials will provide guidance aspects of designating and developing a focal point. Additionally, NCOA will provide training workshops in all 10 regions with attendees from all 50 states and the District of Columbia, for network personnel.

COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES
Technical Assistance

90AM0191
National Association for Area Agencies on Aging
Suite 208
600 Maryland Avenue, S.W.
Washington, DC 20024
Targetting Services to Minority Elders: A Collaborative Effort
Ed Sheehy
(202) 484-7520
12/01/89 - 09/30/92 AoA : $ 0 $ 0 $ 0
COMMUNITY-BASED CARE SYSTEMS DEVELOPMENT/IMPROVING LINKAGES;
Continuing Education and Training for Professionals and/or Paraprofessionals

Grantee will design information and instructional materials and training programs to assist Area Agencies on Aging overcome barriers to minority participation in Title III funded programs. Products will include dissemination workshops to demonstrate the applicability of an Agency Self-Assessment and Training Package developed through the project. A Minority Targetting Technical Assistance Center will also be established to provide the AAA network with ongoing assistance regarding minority targetting issues.

PROJECT
FUNDING
FY 1987 FY 1988 FY 1989

ELDER ABUSE
Research

90AM0115
Illinois Department on Aging
Planning and Program Section
421 East Capitol Avenue
Springfield, IL 62701
Comparison of Paid vs Volunteer Multidisciplinary Teams in Providing Community-Based Care to Elderly Abuse Victims
Carolyn Stahl
(217) 785-3386
08/01/88 - 07/31/90 AoA : $ 0 $ 198,202 $ 198,202
ELDER ABUSE;
Community-based Care Systems Development/Improving Linkages

This research will compare and contrast paid versus voluntary multidisciplinary teams (M-teams) and urban versus rural M-teams in serving elder abuse victims. Two urban and two rural Case Coordinations Units (CCUs) of the Illinois Department on Aging will develop M-teams that will be monitored and evaluated. One urban and one rural CCU will pay M-team members for their time. The other two will have voluntary teams. The states' elder abuse data base will be used to compare CCUs with M-teams versus comparable CCUs without M-teams. Implementation data will be gathered from telephone interviews, site visits and team minutes to describe how teams are organized, solve problems, and fill service gaps. Impact data will be collected on each victim and after each team meeting. These data will examine differences in the length of time cases stay open, the outcomes of service planning, turnover of team members, costs and benefits of using M-teams, and satisfaction of team members. Research products include data collection instruments for evaluating M-team members, a training curriculum, and papers and presentations about the results.

EMPLOYMENT/INCOME SECURITY
Demonstration

90AM0245
American Association for International Aging
1511 K Street, N.W., Suite 443
Washington, DC 20005
Income Generating Projects for the Elderly
Helen Kerschner
(202) 638-6815
07/01/86 - 03/31/90 AoA : $ 107,851 $ 85,651 $ 0
OPPL : $ 143,916 $ 57,101 $ 0
EMPLOYMENT/INCOME SECURITY;
Other

Major objective of the project is to find innovative income-generating programs for the elderly in the United States and other countries which can be adapted to the U.S. Four demonstration sites will be established and evaluated. Products will include: 1) data base of domestic and international income-generating projects for the aging; 2) reports on particularly innovative income-generating programs; 3) various written materials including information on establishing income-generating activities, models, and state-of-the-art information. Two aging forums will be used to provide information about income-generating programs for the elderly.

HBCU INITIATIVE
Demonstration

90AM0386/01
Morehouse School of Medicine
720 Westview Drive, S.W.
Atlanta, GA 30310
Morehouse School of Medicine
Mary Williams , Ed.D.
(404) 752-1626
10/01/89 - 02/28/91 AoA : $ 0 $ 0 $ 59,300
HBCU INITIATIVE;
Health Promotion/Health Education;
Development of Academic Institutions/Faculty/Curricula

The Morehouse School of Medicine will develop in collaboration with Fort Valley State College and various community groups and state and local agencies, a model health promotion and disease prevention program for low-income elderly blacks. The overall goal is to develop a health promotion and disease prevention program to promote health and well-being by encouraging the reduction of risk factors related to disability or death from preventable or controlable health problems. Central to this model is the collaboration among existing agencies and organizations in order to bring a culturally sensitive program to this hard-to-reach population that will be acceptable and utilized. This model will be innovative in that it focuses on using peer counselors and personalized methods for carrying the message of health promotion.

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HBCU INITIATIVE
Demonstration

90AM0387/01
Alcorn State University
P.O. Box 1830
Natchez, MS 39121
Health Promotion Among Minority Elderly in Southwest Mississippi
Frances Henderson , Ed.D.
(601) 442-3901
10/01/89 - 01/20/91 AoA : $ 0 $ 0 $ 60,000
HBCU INITIATIVE;
Health Promotion/Health Education;
Health Care/Services - Physical

The project will utilize the University Division of Nursing Staff to take health screening, education and counseling to minority elderly at four senior centers in Adams County via a mobile nursing center and rural transportation network. Clients will be referred to other health care professionals when needed. A mobile nursing van provided by the Kellogg Foundation for a teen health program will be shared with this project. Data will be collected regarding the health promotion practices and needs of minority elderly in the 13-county Alcorn State University Co-op Extension area.

HBCU INITIATIVE
Demonstration

90AM0388/01
Virginia State University
School of Social Work
Petersburg, VA 23803
Wellness Center for Minority Elderly in Tri-Cities Area
Jean Cobbs
(804) 524-5000
09/30/89 - 12/31/90 AoA : $ 0 $ 0 $ 60,000
HBCU INITIATIVE;
Health Promotion/Health Education;
Development of Academic Institutions/Faculty/Curricula

This project will develop a model wellness and personal care center for the Public Service Area to expand health care knowledge and encourage self-expression through arts, games and exercise. It stresses a holistic, interdisciplinary approach and will involve seniors as peer counselors, speakers, and on the advisory committee. The model is designed for replication by other HBCUs.

HBCU INITIATIVE
Demonstration

90AT0431/01
Prairie View A&M University
P.O. Box 478
Prairie View, TX 77446
Health Screening and Health Education Information Designed for Minority Elderly in a Rural Community Setting
Thelma Pierre , CSWLPC
(409) 857-2511
10/01/89 - 11/30/90 AoA : $ 0 $ 0 $ 60,000
HBCU INITIATIVE;
Health Promotion/Health Education

The overall goal of this Health Promotion Program is to identify factors which prohibit persons age 65 and older from receiving preventive and early diagnostic health care services. Additionally, the program will identify and/or develop culturally sensitive materials which will enhance behavioral changes in older adults to become more attuned to their health needs. The objectives of the program are to: (1) identify the physical conditions of the participants via medical examinations and self-reported health assessments; (2) develop a Health Information Packet which includes culturally relevant materials; and (3) conduct assessments of participants' behavioral and attitudinal changes as they relate to their physical condition.

ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT — FUNDING FY 1987 — FY 1988 — FY 1989

HBCU INITIATIVE
Demonstration

90AT0435/01
Hampton University
School of Nursing
Hampton, VA 23668
Health Promotion for Minority Elderly
Patricia Sloan , R.N.
(804) 727-5251
10/01/89 - 03/31/91 AoA : $ 0 $ 0 $ 60,000
HBCU INITIATIVE;
Health Promotion/Health Education

This project will conduct a needs survey to ascertain interest of elderly to participate in project; develop and pilot test 9 learning modules for professionals to teach health promotion to older people; and demonstrate a three-phased health promotion/risk reduction model at the Hampton University Nursing Center. The model is composed of multi-phasic screening, health education and health counseling. Older participants will be administered pre-tests and post-tests to determine the effectiveness of the model.

HBCU INITIATIVE
Information Dissemination/Public Education

90AT0430/01
Voorhees College
Voorhees Road
Denmark, SC 29042
Health Promotion for Elderly Minority Rural South Carolina
Sweh Vena , Ph.D.
(803) 793-3351
10/01/89 - 02/28/91 AoA : $ 0 $ 0 $ 60,000
HBCU INITIATIVE;
Health Promotion/Health Education;
Development of Academic Institutions/Faculty/Curricula

Project goal is to provide information on disease prevention and health promotion to older Blacks in three rural South Carolina counties. Activities include conduct of a needs assessment and a health fair; development of a wellness curriculum and a volunteer peer counselor training program that provides training for 30 older persons. Health promotion activities will use the New York STAY WELL as a model, tailoring it to meet the needs of rural minority elders.

HBCU INITIATIVE
Information Dissemination/Public Education

90AT0433/01
Morgan State University
Urban Gerontology Program
Cold Spring Lane and Hillen Road
Baltimore, MD 21239
Health Maintenance Education Program
Willemae Kilkenny , Ph.D.
(301) 444-3362
10/01/89 - 09/30/90 AoA : $ 0 $ 0 $ 59,634
HBCU INITIATIVE;
Health Promotion/Health Education

Project goal is to improve the health of older minorities in urban and rural settings within the State of Maryland. Twenty professionals and 100 minority elderly will be trained at 5 sites. The project has several unique elements, including exerting special efforts to reach men via barber shops, churches, and mens' orgnaizations; celebrating birthdays; encouraging program participants to use individual logs; and a final session that produces a documentary of oral histories and tape summaries by older adults. Health promotion topics include stress control, eating habits, exercise, and fitness.

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HBCU INITIATIVE
Information Dissemination/Public Education

90AT0434/01
Lincoln University
Office of Sponsored Research and Programs
820 Chestnut Street
Jefferson City, MO 65101
Health Promotion Programs for Older Black Adults via Public Access T.V.
Delores Penn , Ph.D.
(314) 636-4743
10/01/89 - 02/28/91 AoA : $ 0 $ 0 $ 59,521
HBCU INITIATIVE;
Health Promotion/Health Education

Project goal is to motivate older Black people to adopt healthier life styles by managing their own health care. In cooperation with the Missiouri Department of Health, grantee will produce six 30-minute television programs for broadcast on the statewide public access channel and for presentation at national meetings. Thirty older volunteers will participate in programs as actor/role models and provide peer support. Six instructional guides will be developed for use with the tapes. Topics to be focused upon include eating habits, exercise, proper rest, regular health checks, and stress reduction. Target population includes minorities nationwide, age 55 plus.

HBCU INITIATIVE
Training

90AT0432/01
Florida A&M University
Department of Social Work
Tallahassee, FL 32307
Church-Based Health Promotion Project for the Black Elderly
James Y. Koh , Ph.D.
(904) 599-3215
10/01/89 - 02/28/91 AoA : $ 0 $ 0 $ 59,57
HBCU INITIATIVE;
Health Promotion/Health Education

Project goal is to establish a church-based health promotion program for urban Blacks in Tallahassee, Florida. Activities include conducting a needs assessment to prioritize risk factors associated with chronic disease; training church volunteers to communicate health promotion information to at-risk older members; and administering pre and post tests to evaluate effectiveness of information provided. Project expects to reach over 500 older people and to train 50 ministers and 16 lay people for future development of health promotion programs.

HBCU INITIATIVE
Training

90AT0436/01
Tougaloo College
500 West County Line Road
Tougaloo, MS 39174
Preservice and In-Service Training in Health Promotion
Dorothy Idelburg , Ph.D.
(601) 956-4941
09/30/89 - 12/31/90 AoA : $ 0 $ 0 $ 60,0
HBCU INITIATIVE;
Health Promotion/Health Education;
Development of Academic Institutions/Faculty/Curricula

This project will establish, in collaboration with the State and Area Agencies on Aging, a Health Promotion Training Program for in-service and pre-service health personnel in statewide public and private health agencies. The goals are to increase the number of trained persons entering careers in health promotion, to strengthen and expand training opportunities in health promotion, and to sensitize the community to health problems affecting minority elderly. The project will develop training modules in stress management, nutrition, physical health, personal and community self-help and common health concerns. Certificates will be awarded upon completion of the program, which will become an on-going part of the Gerontology Program.

PROJECT FUNDING
FY 1987 FY 1988 FY 1989

HEALTH CARE/SERVICES - PHYSICAL
Demonstration

90AM0176
Maine Department of Human Services
Bureau of Maine's Elderly
Statehouse, Station 11
Augusta, ME 04333
Project Maine Neighbor
Christine Gianopoulos
(207) 289-2561
09/30/89 - 09/29/91 AoA : $ 0 $ 0 $ 105,57
HEALTH CARE/SERVICES - PHYSICAL;
Community-based Care Systems Development/Improving Linkages

Project Maine Neighbor is a two-year collaborative effort among the Bureau of Maine's Elderly, five Area Agencies on Aging and other community groups to ensure elderly citizens access to hospital-based health care. Project Maine Neighbor will focus on the leadership role of Area Agencies. Each will target specific segments of the health care access problem within its region with the goal of expanding solutions State-wide. Public and private organizations such as Cooperative Extension, churches and others will become involved in providing needed services. The Bureau of Maine's Elderly will coordinate State and regional activities. The project, which requires no new programs or facilities, will serve older people in all regions of Maine and will result in models for community collaboration, clarify the role of voluntary initiatives, and test new approaches for addressing policy issues of State-wide significance.

HEALTH PROMOTION/HEALTH EDUCATION
Demonstration

05AM7032
Lac du Flambeau Band of Chippewa Indians
P.O. Box 67
Lac Du Flambeau, WI 53538
Prevention and Treatment of Alcohol Problems for Older American Indian Persons
Robert Polfus
(715) 588-3371
09/30/88 - 02/28/90 AoA : $ 0 $ 54,481 $
HEALTH PROMOTION/HEALTH EDUCATION;
Other;
Health Promotion - Mental Health

This demonstration project is designed to provide a model comprehensive service program for older Indians with alcohol problems, and their families. The approach will include education, detection, treatment and prevention. An education program will assist family members and caregivers to identify older Indians at risk or showing symptoms of alcohol abuse, and will encourage them to make referrals. Comprehensive case management plans will be developed and implemented for persons who have been referred, using trained Indian elders who will serve as role models and service deliverers. Expected outcomes are a reduction in the rate of those at risk of alcohol problems among the aging population and a reduction in the absolute number of older Indians having alcohol problems.

HEALTH PROMOTION/HEALTH EDUCATION
Demonstration

90AM0061
Blackfeet Tribal Business Council
P.O. Box 850
Browning, MT 59417
Pikuni Recovery Program
Donald Pepion
(406) 338-2531
09/30/88 - 02/28/90 AoA : $ 0 $ 75,000 $
HEALTH PROMOTION/HEALTH EDUCATION;
Other

The Blackfeet Tribal Business Council will develop a culturally relevant community-based program for the prevention, treatment and aftercare of older Indians affected by alcoholism and alcohol abuse on the Blackfeet Reservations The project will have five objectives which provide: (1) awareness; (2) counseling; (3) education and training; (4) public education; and (5) social infrastructure activities, events and products. Outcomes of the project include a model culturally relevant counseling program using elders as group facilitators; a 2-year degree program for training and educating Chemical Dependency Counselors for Indian programs; public education materials; and a system for grief and crisis intervention.

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HEALTH PROMOTION/HEALTH EDUCATION
Demonstration

10AT0023
Coeur d'Alene Tribe
Tribal Social Services
Plummer, ID 83851
Substance Abuse Treatment/Prevention Project for Indian Elders of the Couer d'Alene Indian Reservation
Faith Spotted Eagle
(208) 274-3101
09/30/88 - 02/28/90 AoA : $ 0 $ 75,000 $ 0
HEALTH PROMOTION/HEALTH EDUCATION:
Other

"National figures indicate that 95% of all American Indians are affected either directly or indirectly by a family member's use of alcohol." The goal of Elder Intervention Project is to establish a tribally-based program for the detection and treatment of alcoholism among older Indians on the Couer d'Alene Reservation of Idaho.

The mechanism for intervention will be the Project Coordinator/Counselor and one additional staff member, an Elders Counselor/Advocate. Family counseling services will be provided to families dealing with pre, post and alcoholic older persons. Direct services will be provided to a sub-group of 35 elders who may be more severely affected by alcohol abuse, individually or through family members/users. Staff members will be State Certified Alcohol counselors.

HEALTH PROMOTION/HEALTH EDUCATION
Demonstration

90AM0375
University of Maryland at College Park
Department of Health Education
2100 Lee Building
College Park, MD 20742
Using Social Support to Enhance Smoking Cessation in Older People
Robert Feldman , Ph.D.
(301) 454-4683
09/29/89 - 02/28/91 AoA : $ 0 $ 0 $ 149,9
HEALTH PROMOTION/HEALTH EDUCATION

This project will produce a model smoking cessation program for older workers/retirees targeted toward low income, low education, minority persons who constitute a high proportion of older smokers. This is a collaborative effort involving the University of Maryland, John Hopkins University, the Maryland Office on Aging, local chapters of the American Lung Association and the national office, and a major labor organization. The project will develop (1) a Statewide educational smoking cessation campaign; (2) materials/programs specifically adapted to the needs of older smokers; (3) linkages between aging agencies and other organizations to encourage smoking cessation campaigns; and (4) a combination of smoking cessation strategies to approach the diverse need of the older population. The model smoking cessation program will target olde workers/retirees, and will work with families/physicians to encourage a supportive network for older persons who are quitting smoking. Products to include a training manual for State/Area Agencies on Aging to use in implementing smoking cessation programs, and campaign materials targeted toward the older smoker.

HEALTH PROMOTION/HEALTH EDUCATION
Demonstration

90AT0437
New Mexico State University
TIGRE
P.O. Box 30001, Department 3TG
Las Cruces, NM 88003
Promoting Health of Native American Elderly through Nutrition Curriculum Development and Onsite Education
Jean Coyle , Ph.D.
(505) 646-3426
09/29/89 - 02/28/91 AoA : $ 0 $ 0 $ 149,957
HEALTH PROMOTION/HEALTH EDUCATION:
Nutrition

The New Mexico State University (NMSU) Institute for Gerontological Research and Education (TIGRE) in collaboration with the NMSU Department of Home Economics and the New Mexico State Agency on Aging will develop and implement a model nutrition education and health promotion program designed to motivate Native American elderly to make positive behavioral changes in their cooking and eating habits. The project will develop a culturally sensitive nutrition education curriculum and train 20 selected Title VI staff and Native American peers to educate approximately 300 Native American elderly on 5 pueblos at their nutrition sites. The project will produce a nutrition education kit that includes teaching materials, specialized curricula and culturally adapted food menus that decrease the intake of saturated fats and refined carbohydrates and increases the intake of dietary calcium.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AM0298
Florida Department of Highway Safety and Motor Vehicles
Division Florida Highway Patrol
Neil Kirkman Building
Tallahassee, FL [illegible]399-0554
Motor Vehicle and Pedestrian Safety for Aging in Florida
Robert Kirby, (Maj.)
(904) 488-5370
09/15/87 - 12/31/89 AoA : $ 145,150 $ 0 $
HEALTH PROMOTION/HEALTH EDUCATION

This project will conduct a Statewide campaign which addresses the need for public education and awareness of the implications of advancing age and its relationship to driver and pedestrian safety. The campaign, which will be targeted to older persons as well as the general public, will utilize a multimedia approach including print materials in Spanish and English, public service announcements, close captioned videotapes and public information packages. The major outcomes will be increased public awareness of pedestria and motor vehicle safety and increased participation in the AARP '55 Alive' driver education program. The major products will be public information materials for use by the Florida Highway Patrol and volunteer and other organizations.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AM0379
University of Pennsylvania
School of Medicine
3451 Walnut Street
Philadelphia, PA 19104
Prototype Educational Program to Inform Black and Hispanic Older Adults about Hearing Loss
Mourey RizaLavizzo , M.D.
(215) 898-1548
09/29/89 - 12/31/90 AoA : $ 0 $ 0 $ 150,000
HEALTH PROMOTION/HEALTH EDUCATION

This project is designed to test the feasibility of using direct mail for educating older Blacks and Hispanics about hearing loss and encouraging them to seek free screening for detection of hearing loss. The grantee will first interview a sample of Black and Hispanic Elderly to determine their health beliefs and perceptions about hearing loss and perceived barriers to treatment. This information will be used to design a series of educational brochures addressing the prevalence of hearing loss among the elderly, recognition of attitudes toward hearing loss, diagnosis and treatment of hearing loss as well as unique concerns of Black and Hispanic elderly populations. Brochures will be distributed among census tracts with high concentrations of Black and Hispanic households. Each brochure will have an evaluation section which can be torn off and returned to enable the respondents to receive free hearing tests. The effectiveness of this method of reaching people will be evaluated at the time of the hearing tests.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AM0389
Virginia Commonwealth University
Medical College of Virginia, Department of Gerontology
P.O. Box 568, MCV Station
Richmond, VA 232[illegible]-0568
A Detection and Prevention Program for Geriatric Alcoholism
Nancy Osgood , Ph.D.
(804) 786-1565
09/29/89 - 02/28/91 AoA : $ 0 $ 0 $ 137,77
HEALTH PROMOTION/HEALTH EDUCATION

This project is a joint activity of Virginia Commonwealth University Department of Gerontology in cooperation with the Virginia Department for the Aging, and with the support of the Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services and the Virginia Department of Health. The project will develop a unique Statewide model alcoholism detectio and prevention program aimed at educating service professionals in aging, health, mental health and substance abuse services about alcohol use, abuse an effects on older persons. In addition, the project will provide public education for older adults, their family members and caregivers about alcohol use, prevention, detection and treatment services available in the community. The project will also develop a training program targeted at professionals throughout the State. A teleconference will be held and a videotape developed in addition to other written materials.

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ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT	FUNDING FY 1987	FY 1988	FY 1989

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0370
New Mexico State Agency on Aging
224 E. Palace Avenue, 4th Floor
Santa Fe, NM 87501
Growing Old with Health and Wisdom: A Multicultural Model
Stephanie J. FallCreek, D.S.W.
(505) 827-7640
09/30/88 - 02/28/90 AoA : $ 0 $ 150,000 $ 0
HEALTH PROMOTION/HEALTH EDUCATION

Project goal is to develop a model statewide program that educates older New Mexico Indians and Hispanics about self-care. Collaborators on the development of the model include: American Association for Retired Persons, the American Red Cross, the University of New Mexico Center for Aging Research, Education and Service; the New Mexico State University, and the Santa Fe Senior Citizens Department. The three part curricula will focus on self care through "Staying Healthy After Fifty", on mental health through "Growing Wiser" and on rural elders through Rural Geriatric self-care clinics. These curricula will be implemented in eight counties and reach about 1,000 elders. Products include "Tailoring Tips" brochure for rural Hispanic and Native American elders, and an AoA/Primary Care Association Self-Care Clinic Collaboration Model with an inspirational video tape.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0374
University of Hawaii
School of Public Health
1960 East-West Road
Honolulu, HI 96822
Elderly Education for Self-Care
Lawrence K. Koseki
(808) 948-8036
09/01/88 - 01/31/90 AoA : $ 0 $ 149,920 $
HEALTH PROMOTION/HEALTH EDUCATION

The School of Public Health will design a model self-care curriculum and develop a model information packet of practical tips for older persons and their caregivers about early recognition of disease symptoms, seeking help from health care professionals, safe drug use and healthy lifestyles. Materials will be developed in 3 languages: English, Japanese and Illocano. The materials will be developed with input from aging program staff and health car professionals. The materials will be field tested and evaluated using 25 volunteer educators. It is anticipated that approximately 1,750 older persons and their caregivers will enroll in this model program.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0378
Rhode Island Department of Health
Office of Health Promotion
75 Davis Street
Providence, RI 02908-5097
Promoting Geriatric Self-Care: Enhancing the Management of Chronic Health
Robert Marshall, Ph.D.
(401) 277-6957
09/30/89 - 06/30/91 AoA : $ 0 $ 150,000 $ 0
HEALTH PROMOTION/HEALTH EDUCATION

The Rhode Island Department of Health, the State Department of Elderly Affairs, and Program in Gerontology at the University of Rhode Island will develop a computerized geriatric health risk appraisal instrument and a manual to enable older people to better manage three chronic diseases: osteoarthritis, diabetes, and heart disease. The program will enhance participants' ability to interact with the health care system. It will be tested in workshops at five community sites and revised extensively to assure its effectiveness. The computerized appraisal instrument and manual will be disseminated through the health department and commercial distributors.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0381
University of Southern Maine
Human Services Development Institute
96 Falmouth Street
Portland, ME 04103
Fighting a Neglected National Crisis: Elderly Fire Deaths and Injuries
Richard Fortinsky, Ph.D.
(207) 780-4430
09/30/88 - 02/28/90 AoA : $ 0 $ 149,985 $
HEALTH PROMOTION/HEALTH EDUCATION;
Other

The purpose of the project is to provide contemporary video and printed materials to specifically address causes and prevention of fires affecting the elderly. This project will assemble recent information on elderly fire deaths and injuries as well as prevention methods. Based on this information, the project will produce and disseminate nationally: (1) four PSA's hosted by a known senior actor, (2) a 20-minute instructive video on elderly fire hazards and prevention, (3) an elderly-oriented fire safety brochure, and (4) a curriculum guide on fire prevention and reduction of fire injuries for professional caregivers. The project will sponsor a national conference for National Fire Prevention Association members and conduct an elderly fire prevention campaign as the theme of National Fire Prevention Week for 1989 or 1990.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0396
National Association of Home Builders
Builder and Association Services
15th and M Streets, N.W.
Washington, DC 20005
Reducing Fire-Related Injury and Death among the Elderly: A Coordinated Public/Private Approach
Carol Schaake
(202) 822-0200
09/30/88 - 02/28/90 AoA : $ 0 $ 149,901 $ 0
HEALTH PROMOTION/HEALTH EDUCATION;
Other

The project will identify the scenarios that result in fires affecting the elderly and the appropriate protection and prevention strategies. Based on this research, materials and a public information program will be developed to help older people eliminate fire risks, detect fires readily, suppress fire rapidly, and increase chances to escape. The grantee will work with its Florida and Ohio state affiliates to implement the public information program through involvement with state fire marshalls' office, the state consumer affairs office and the AARP state chapter. Products will include a report and pamphlets on fire scenarios and prevention strategies, pamphlets on focusing-related and behavioral changes that ensure fire safety, plans for a fire-safety trailer, and the model public education campaign.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0397
Vermont Department of Health
Division of Epidemiology and Disease Prevention
1193 North Avenue, P.O. Box 70
Burlington, VT 05402
Building Community Coalitions for the Prevention of Fires and Burns among the Elderly
Marge Hamrell
(802) 863-7330
09/30/88 - 02/28/90 AoA : $ 0 $ 129,526 $
HEALTH PROMOTION/HEALTH EDUCATION;
Other

Building on existing state elderly fire prevention initiatives, the project seeks to develop community programs to provide public education about fire issues affecting older people and to assist older people to take actions to reduce the incidence of fires and injuries. The project will select at least eight community sites where trained area coordinators will work with local community leaders, elderly firefighters and service providers to plan and implement the community programs. The programs will conduct both "train the trainers" sessions to reach mainstream older people, and special outreach activities to reach isolated older people.

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PROJECT   FUNDING
                                          FY 1987   FY 1988   FY 1989

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0399
Metropolitan Pittsburgh Public Broadcasting
4802 5th Avenue
Pittsburgh, PA 15213
Education for Self-Care on Public Television: A Local Demonstration for National Dissemination.
Marc Pollock
(412) 622-1467
09/30/88 - 02/28/90 AoA : $ ______0 $ 150,000 $ ______0
HEALTH PROMOTION/HEALTH EDUCATION

Project goal is to produce public television programming that will stimulate the proactive participation of seniors in the management of their own health care. Effort will combine the resources and expertise of WQED Public Broadcasting Station, the Pennsylvania Department on Aging, Health and Aging Coalition, and the National Association of State Units on Aging to produce 260 half-hour television programs that educate older people about managing their health care. Twelve of the programs will be developed for viewing by a national audience via satellite. Programs will be designed for use "as is" with local information and SUA/AAA tags added, or for use of selected segments in programs created by local users. Dissemination is designed to encourage cooperation on the use of monthly video compendia by local public television stations with the active leadership of the SUA/AAA. Other products include a guidebook, and video teleconferences between local PBS executives and SUA/AAAs to establish and maintain relationships that will encourage nationwide airing of the programs developed.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0402
Home of Mercy for the Aged
Box 215
Juncos, PR 00666
Educating Hispanic Elderly and Caregivers for Increased Self-Care
Jose A. Lopez
(809) 734-0274
09/30/88 - 02/28/90 AoA : $ ______0 $ 150,000 $ ____
HEALTH PROMOTION/HEALTH EDUCATION

Project goal is to demonstrate an effective model for educating elderly Hispanic persons to assume a more active role in the management of their heal care. Grantee plans to effect better utilization of community resources by developing and disseminating health promotion and disease prevention information in a humorous format through statewide television and radio programs based on sound gerontological content and health concepts. Project expects to teach 1,000,000 Puerto Ricans by creating reusable audio visual materials. As an adjunct, project will provide direct education to 300 urba and rural elderly through two existing service programs and a telephone hotline. Products include: six 30-minute Spanish language TV video tapes; 1 TV/Radio spots on categorical illnesses; a hotline; training curricula with group exercises; and a procedures manual.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0404
University of Pennsylvania
School of Medicine
Rehabilitation Research and Training Center in Aging
Philadelphia, PA 19104
Education for Self-Care
Virginia Smith
(215) 898-1058
09/30/88 - 02/28/90 AoA : $ ______0 $ 149,612 $ ______
HEALTH PROMOTION/HEALTH EDUCATION

Project goal is to develop training materials on self-care for older persons and their caregivers. Materials will be designed to encourage optimum health care for older persons and to stimulate more efficient use of health resources when the need arises. Materials will focus on ways to reduce inappropriate use of health care resources. Some materials will be tailored to provide assistance for disabled elders and their families. Input from focus groups will help determine the content of materials. The Philadelphia Corporation on Aging, and the local AAA will test the products developed, using the "train the trainer" approach. The State Agency will help disseminate materials to interested parties in the State. A statewide training conference will be held. Products include: (1) "Self-Care Fact Sheets" on 30 diseases and chronic conditions; (2) a catalogue of health education materials; (3) 30 five-minute audio self-help tapes; (4) 10-minute VHS and Beta video tapes on selected topics; and (5) a series of evaluation reports.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0405
Case Western Reserve University (CWRU)
School of Medicine
Division of Geriatric Medicine
Cleveland, OH 44106
Education for Self-Care in the Elderly: A Model for Ohio
Jerome Koval
(216) 844-7246
09/30/88 - 02/28/90 AoA : $ ____0 $ 149.279 $ ____
HEALTH PROMOTION/HEALTH EDUCATION

Program goal is to develop, implement and disseminate a model self-care training program for the elderly of Ohio. Project activities stress the role of health peer counselors, and use the "train the trainers" approach. Trainin modules will be directed toward expanding knowledge about good health, life style changes, and personal advocacy. Modules will be tested in the region served by the Western Reserve Area Agency on Aging (Cleveland SMSA). Project will be coordinated through the Geriatric Education Center at CWRU's School of Medicine. Collaborators include a consortium with other Northeast medical schools. Products will be disseminated to the Ohio network of AAAs and will include: (1) a 10 session training series; (2) a 40-hour train the trainer program on self-care and adult learning strategies; (3) a training manual for senior trainers; and (4) evaluation protocols to assess the models effectiveness.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0406
Michigan Office of Services to the Aging
Box 30026
Lansing, MI 48909
Older People and Fire: Meeting the Need to Know
Sally Grady
(517) 373-4072
09/30/88 - 02/28/90 AoA : $ ____0 $ 114.000 $ ____
HEALTH PROMOTION/HEALTH EDUCATION;
Other

The project provides fire prevention education to over 800 older people and 200 firefighters in Michigan. Specific objectives include expanding and improving existing public information materials; training firefighters regarding special needs of elderly and their role as educators; dissemination of material through local aging and firefighter networks; testing educational model through presentations in three sites; producing public service announcements; conducting and monitoring two community education programs for older people in each of Michigan's 14 PSA's; and reporting recommendations on home modification needs identified by older people attending the education programs.

HEALTH PROMOTION/HEALTH EDUCATION
Information Dissemination/Public Education

90AT0410
Harvard Colleges
School of Public Health
677 Huntington Avenue
Boston, MA 02115
Massachusetts Elderly Injury Prevention Project
Paul D. Cleary , Ph.D.
(617) 735-0174
10/01/89 - 02/28/91 AoA : $ ____0 $ ____0 $ 149.9
HEALTH PROMOTION/HEALTH EDUCATION;
Other

The project goal ~~is~~ to demonstrate strategies for improving home safety and reducing medication misuse among older people. Service providers will be trained to provide health promotion education and intervention and home repair to prevent injuries; and a Statewide public education campaign will be conducted. Products include two model television and radio public service announcements (PSAs), one on medication misuse and the other on home safety; a home safety checklist; information on medication misuse; and a training module on injury prevention among the elderly. Project activities build on materials developed by AoA and the U.S. Consumer Product Safety Commission, target minority elderly, and focus on two areas often neglected, i.e. accident prevention and medication misuse. Collaborators include Harvard School of Public Health, Massachusetts Department of Public Health, and Massachusetts Department of Elder Affairs.

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ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT | **FUNDING**
FY 1987 | **FY 1988** | **FY 1989**

HEALTH PROMOTION/HEALTH EDUCATION
Research

9GAT0376
University of Southern California
Andrus Gerontology Center
Los Angeles, CA 90089-0191
Pharmaceutical Consultation as a Community Service
Neal Cutler, Ph.D.
(213) 743-7137
09/30/88 - 02/28/90 AoA : $ 0 $ 128,273 $ 0
HEALTH PROMOTION/HEALTH EDUCATION;
Supportive Services

Project goal is to develop a model community-based pharmaceutical consultation service for older people. Access to multiple medicines prescribed by different doctors and purchased from multiple sources, including chain and mail order pharmacies, can impact older people's daily living as well as public policy in the pharmaceutical and aging arenas. Grantee will identify existing services; analyze design and assess costs and personnel factors; and determine potential responses to pharmaceutical consultation as part of the community service system. Products include: (1) a national program inventory; (2) feasibility data on personnel, costs and public response; and (3) program model(s).

HEALTH PROMOTION/HEALTH EDUCATION
Training

90AM0261
American Foundation for the Blind
15 West 16th Street
New York, NY 10011
A Training Model to Teach Community Outreach Workers to Train Elderly Blind & Visually Impaired America
Roberta Orr
(212) 620-2000
09/01/87 - 03/31/90 AoA : $ 193,788 $ 0 $
HEALTH PROMOTION/HEALTH EDUCATION;
Continuing Education and Training for Professionals and/or Paraprofessionals;
Community-based Care Systems Development/Improving Linkages

This project will develop a 7 module rehabilitaion training model to teach 200 Indian Health Service indigenous Community Health representatives (CHRS) to train 10,000 elderly blind and visually impaired American Indians adaptive independent living skills in order to insure physical and psychological independent functioning, and prevent costly and premature institutionalization. The training consists of five, 5 week on-site training sessions carried out by a rehabilitation teacher. Pre and post assessment of community health representatives will provide the data for analysis, revealing the effectiveness of the training model. The model and findings will be disseminated to local, state, and Federal organizations, agencies on aging and blindness, as well as to National Indian Organizations.

HEALTH PROMOTION/HEALTH EDUCATION
Training

9OAM0385
Florida A&M University
Office of Continuing Education
P.O. Box 367
Tallahassee, FL 32307
Diabetic Retinopathy Education Program
Leonard L. Inge , DPharm
(904) 599-3495
09/30/89 - 09/30/91 AoA : $ 0 $ 0 $ 75,21
HEALTH PROMOTION/HEALTH EDUCATION

This program will involve educating pharmacists throughout the State of Florida about the cause, prevention and treatment of diabetic retinopathy, as well as how to provide effective patient and community education. In turn, the pharmacists will provide widespread education to high risk groups including Blacks, Native Americans, Hispanics, the elderly, and those on low or fixed incomes. Since loss of eyesight can be prevented through early detection and treatment, the purpose of this program is to reduce the number of individuals who experience visual impairment or complete loss of eyesight as a result of diabetic retinopathy.

HEALTH PROMOTION/HEALTH EDUCATION
Training

90AT0356
Creighton University
Center for Healthy Aging
42nd & Center Streets
Omaha, NE 68105
Geriatric Self Help Center
David Haber, Ph.D.
(402) 341-1197
09/30/88 - 02/28/90 AoA : $ 0 $ 149,982 $
HEALTH PROMOTION/HEALTH EDUCATION;
Continuing Education and Training for Professionals and/or Paraprofessionals

The Geriatric Self-Help Center has two goals: to encourage older persons and their caregivers to join self-help groups; and to foster collaboration between self-help groups and geriatrically trained professionals. The project, which will focus on the states of Illinois and Nebraska, will: sponsor a statewide conference in each state designed to attract a total of 800 persons; will refe at least 150 persons to self-help groups; sponsor workshops for geriatrically trained professionals designed to encourage them to become involved with and refer their clients to self-help groups; and produce and disseminate 5 booklet on self-help. The project is a collaborative effort among two State Departments on Aging, two State Self-Help Clearinghouses, State Educational Programs for Health Promotion, Regional Geriatric Education Centers, AARP and other volunatary organizations including a foundation committed to support the project after the grant terminates.

HEALTH PROMOTION/HEALTH EDUCATION
Training

90AT0373
College of Mount Saint Joseph

Mt. St. Joseph, OH 45051
PATHS: Positive Adults Taking Health Seriously
Kathleen Prezbindowski, Ph.D.
(513) 244-4403
09/01/88 - 01/31/90 AoA : $ 0 $ 150,000 $ 0
HEALTH PROMOTION/HEALTH EDUCATION

The goal of this project is to expand the successful Positive Adults Taking Health Seriously (PATHs) program Statewide by enlisting the support of Area Agencies throughout Ohio. The target population includes inner city minority elders, age 65 plus, and nursing home residents who are 85 and over. A training manual will be developed as a resource for training older persons about ways to improve their health status and exercise techniques which can be adopted by older persons. The project will employ role-playing and stimulate the development of suppport groups to encourage better self-care. In addition to the resource guide, the project will produce two health education/exercise training videos.

HEALTH PROMOTION/HEALTH EDUCATION
Training

90AT0375
Columbia University
Center for Geriatrics and Gerontology
100 Haven Avenue, Tower 3, 29th Floor
New York, NY 10032
Education for Self-Care: Promotion of Self-Care in Community Health
Ruth Bennett, Ph.D.
(212) 781-0600
09/01/88 - 01/31/90 AoA : $ 0 $ 149,712 $
HEALTH PROMOTION/HEALTH EDUCATION;
Informal Caregiving;
Community-based Care Systems Development/Improving Linkages

The project will train Community Health Centers (CHCs) nurses in the care of the elderly. It will develop training modules and materials to promote greater self-care in the chronically ill elderly and to provide information about self-care to their caregivers. The project will conduct a survey of the CHC staffs to determine the most commonly encountered and troubling chronic diseases and conditions. Five training modules will be developed and field-tested. The modules will be disseminated to other Community Health Centers in New York State with widespread dissemination of the materials which prove to be most useful.

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PROJECT — FUNDING FY 1987 — FY 1988 — FY 1989

HEALTH PROMOTION/HEALTH EDUCATION
Training

90AT0377
University of Arizona
Department of Family and Community Medicine
1450 N. Cherry Avenue
Tuscon, AZ 85719
Health Peers: A Partnership for Aging in Arizona
Evan Kligman, M.D.
(602) 626-6983
09/01/88 - 01/31/90 AoA : $ 0 $ 148,938 $
HEALTH PROMOTION/HEALTH EDUCATION

Project goal is to train older adults as health peer counselors, who will return to the community to teach risk reduction behaviors. Project AGEWELL will be used as a model for teaching behaviors designed to prevent disease and promote self-care for chronic conditions commonly experienced by older people. Basic approaches for preventing cardiovascular diseases, cancer, osteoporsis and common injuries along with self-care techniques for early detection of chronic conditions will be stressed. Low income hispanic elders will be the target population. The AAA will assist in dissemination of products developed. Products include program curricula and guidebook in English and Spanish languages, bilingual handout materials; four quarterly newsletters and an evaluation report.

HEALTH PROMOTION/HEALTH EDUCATION
Training

90AT0382
Northwestern University
Center for Nursing
633 Clark Street
Evanston, IL 60208
Self-Care Education Project
Lucille Davis, Ph.D.
(312) 908-8298
09/30/88 - 03/31/90 AoA : $ 0 $ 109,893 $
HEALTH PROMOTION/HEALTH EDUCATION;
Community-based Care Systems Development/Improving Linkages

Project goal is to develop self-care education materials for black elders. Project activities concentrate on managing three chronic conditions prevalent among black elderly: hypertension, arthritis and diabetes. Activities include training 40 elderly volunteers to pilot test materials and teach self-care skills to their peers at four sites and a national conference to disseminate revised materials. Pilot test sites include a church, senior center, settlement house and community health center; a unique collaboration in an urban area. Activities include collaboration with the National Caucus/Center on Black Aged Annual meeting, cooperation with the State and Area Agencies on Aging, and state and local organizations. Products include: (1) Black Elderly Self-Care Education package; (2) Volunteer Training Manual; and (3) National Conference on Black Elderly Self-Care.

HEALTH PROMOTION/HEALTH EDUCATION
Training

90AT0409
University of Nevada-Reno
Mackay Science-Room 316
Geriatric and Gerontology Center
Reno, NV 89557-0046
Physical Fitness: A Program for Elderly Native Americans
Betty Dodson, Ph.D.
(702) 784-1689
10/01/89 - 02/28/91 AoA : $ 0 $ 0 $ 150,000
HEALTH PROMOTION/HEALTH EDUCATION;
Other

The project goal is to demonstrate a unique strategy that integrates Native American traditions and culture with health promotion techniques. Indigenous Native American teams will be trained to conduct local physical fitness programs in exercise, nutrition, and weight control. Programs will be modified to accommodate native customs, foods, and music. Products include an instructional video tape that will demonstrate older Indians exercising to pow-wow music, and culturally modified slide cassette programs.

HEALTH PROMOTION/HEALTH EDUCATION
Training

90AT0424
University of the District of Columbia
Institute of Gerontology
4200 Connecticut Avenue, N.W.
Washington, DC 20008
Bodywise - An Educational Model
Clavin Fields, Ph.D.
(202) 727-2778
10/01/89 - 02/28/91 AoA : $ 0 $ 0 $ 138.19
HEALTH PROMOTION/HEALTH EDUCATION

The project goal is to educate diverse groups (different ethnic, educational and economic backgrounds) of older people and their families on the benefits of physical activities for the elderly. The training program will be based on the "BodyWise" program in the District of Columbia. It will be administered by the Institute of Gerontology. Project objectives are to: (1) develop training modules and materials on the benefits of physical activity and health promotion for the aging; (2) test the modules and assess the effectiveness of the program; and (3) disseminate the results nationally. The project will produce audio-visual cassettes along with sample flyers and brochures demonstrating types of physical activities and their benefits. The project will result in a well designed and tested training module of health education and promotion program that can be replicated throughout the country. The participants expect to achieve increased mobility and overall physical well-being, and increased knowledge and awareness of the benefits of health promotion activities such as appropriate exercise and nutrition. It is expected that some participants will be able to reduce their intake of medications as their general health improves.

HEALTH PROMOTION/HEALTH EDUCATION
Training

90AT0440
Case Western Reserve University (CWRU)
Department of Medicine and Geriatrics
2040 Adelbert Road
Cleveland, OH 44106
Late Onset Alcoholism: A Training Model for Formal and Informal Caregivers
Mary Altpeter
(216) 844-7246
10/01/89 - 02/28/91 AoA : $ 0 $ 0 $ 150.00
HEALTH PROMOTION/HEALTH EDUCATION

Project develops a formal and informal training program on late onset alcoholism. Trainees are formal caregivers in aging, alcoholism, health promotion and protective services. Informal groups include caregivers, retirees and widows. The curriculum emphasizes prevention, detection, intervention and minority factors. Project objectives are to develop, pilot-test and evaluate prototype educational materials on late onset alcoholism and depression for caregivers of the effected elderly. The project will address the special issues of minority alcoholics in all curricula and education materials and develop prototype public education materials on late onset alcoholism for community audiences.

HEALTH PROMOTION - DENTAL
Information Dissemination/Public Education

90AT0354
Western Consortium for the Health Professions, Inc.
703 Market Street
San Francisco, CA 94103
California Geriatric Dental Health Promotion
Robert Isman, D.D.S.
(415) 546-7601
09/01/87 - 12/31/89 AoA : $ 142,165 $ 7,835 $ 0
HEALTH PROMOTION - DENTAL:
Continuing Education and Training for Professionals and/or Paraprofessionals;
Community-based Care Systems Development/Improving Linkages

This project will provide oral health assessments to older people, educate older people in dental hygiene and prepare dental and other health professionals to meet the oral health needs of older people. Two existing state networks will be utilized. The Preventive Health Care for the Aging (PHCA) Programs will train 48 nurses to provide oral health assessments and dental health education to approximately 18,000 seniors at nutrition sites, senior centers and senior housing projects in 20 planning and service areas. The children's Dental Disease Prevention Program in six counties will recruit and train volunteer dentists, hygienists and retired people to conduct dental health education sessions at sites where older people congregate. Other activities include production of written and audio visual materials for health promotion, improved coordination with dental professionals, and three workshops.

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HEALTH PROMOTION - DENTAL
Training

90AT0336
University of Kentucky
105 Kinkead Hall
Lexington, KY 40506
Oral Health Care Strategies for Family Caregivers in Appalachia
Stanley Saxe, DMDMSD
(606) 233-6384
08/01/87 - 01/31/90 AoA : $ 149,915 $ 0 $ ____
HEALTH PROMOTION - DENTAL;
Informal Caregiving;
Supportive Services

This project will train family caregivers to provide oral health maintenance and cope with oral problems of homebound victims of arthritis, stroke, Parkinson's Disease and Alzheimer's Disease. Sites are in Kentucky, Tennesse and West Virginia. Older volunteers will be recruited to help develop and evaluate instructional materials, videotapes and printed modules for family caregivers. Retired dentists will be recruited as volunteer educators for family caregivers.

HEALTH PROMOTION - DENTAL
Training

90AT0349
University of Mississippi Medical Center
School of Dentistry
2500 North State Street
Jackson, MS 39216
Expanding the Role of Physicians in Oral Health Promotion for the Elderly
Ames Tryon, D.D.S.
(601) 984-6060
09/01/87 - 12/31/89 AoA : $ 135,736 $ 0 $ 0
HEALTH PROMOTION - DENTAL;
Continuing Education and Training for Professionals and/or Paraprofessionals

The project will provide training in oral health assessment, problem identification, patient education and referral of elderly patients to a group of 40 family practitioners. Trainees will receive classroom instruction and one-on-one training, using a model curriculum consisting of videotapes, study guides, training manuals, patient education brochures and a model referral system. The impact of the program will be evaluated by comparing baseline findings from each participant's practice with post training studies.

HEALTH PROMOTION - MENTAL HEALTH
Information Dissemination/Public Education

90AM0299
Asociacion Nacional Pro Personas Mayores
2727 West Sixth Street, Suite 270
Los Angeles, CA 90057
Project Bienestar (Well-Being)
Carmela Lacayo
(213) 487-1922
09/01/87 - 01/31/90 AoA : $ 150,000 $ 0 $ 0
HEALTH PROMOTION - MENTAL HEALTH;
Health Care/Services - Mental

This project will conduct a public awareness campaign to promote better mental health and use of formal mental health care services among Hispanic and other low-income elderly in California. In addition, the project is designed to improve outreach, diagnosis and treatment methods used by providers for mental health networks; and increase corporate sector and community involvement in mental health issues. The project will produce and disseminate a number of informational materials that will be utilized in a Statewide mass media and community outreach campaign; train older workers and volunteers as peer counselors; conduct a Symposium on Mental Health for Low-Income Elderly to educate providers and community leaders about the mental health needs of the target population; and sponsor a Mental Health Awareness Week for Low-Income Elderly.

HEALTH PROMOTION - MENTAL HEALTH
Information Dissemination/Public Education

90AM0301
Florida Department of Mental and Rehabilitative Services
Aging and Adult Services
1317 Winewood Blvd
Tallahassee, FL 32399-0700
Information, Education and Training: A Multi-Faceted Approach to Improving the Mental Health of the Elderly
Victoria Flynn
(904) 488-2650
09/30/87 - 12/31/89 AoA : $ 148,257 $ 0 $ ____
HEALTH PROMOTION - MENTAL HEALTH;
Health Promotion/Health Education

This project is designed to promote better mental health by assisting vulnerable older persons and their families to identify symptoms of depression, stress, and other mental health problems and provide information about where to go for assistance. The project will utilize a three-pronged approach which will (1) increase public awareness of the mental health needs of the elderly through a Statewide media campaign; (2) educate caregivers, physicians nursing home administrators and other providers about mental health problems of older persons, especially those resulting from prescription misuse and abuse; and (3) develop training packages for adult congregate living facility operators and adult foster home sponsors. The project will also target suicide prevention among both the elderly and young adults. Products will include mental health training packages, videos, television talk shows, slide presentations, public service announcements and informational brochures and posters.

HEALTH PROMOTION - MENTAL HEALTH
Training

90AT0347
Rhode Island Department of Mental Health, Retardation and Hospital
Division of Mental Health
600 New London Avenue
Cranston, RI 02920
Mental Health Awareness Program for Seniors
Daniel McCarthy
(401) 464-3291
09/30/87 - 02/28/90 AoA : $ 129,480 $ 0 $ 0
HEALTH PROMOTION - MENTAL HEALTH;
Health Care/Services - Mental

The Mental Health Awareness Project for Seniors is a Statewide education campaign for older persons, their families, and service providers to promote better mental health among older persons in Rhode Island. Interagency teams, including elderly leaders, will be trained to educate and counsel seniors and their families through workshops, support groups, and individual peer counseling. Some older persons will receive more intensive treatment at Community Mental Health Center satellite programs located in senior centers. Regional conferences will assist in educating human service professionals about current research, early intervention and referral resources. A Statewide television and radio campaign will reach many additional Rhode Islanders. The project is designed to strengthen interagency linkages, produce an innovative training package and educational media campaign, and advance the state of knowledge on mental health promotion for older persons.

HOUSING/LIVING ARRANGEMENTS
Demonstration

90AM0323
Illinois Department on Aging
Older American Services
421 East Capitol Avenue
Springfield, IL 62702
Illinois Housing Leadership Network
Rance Carpenter
(217) 785-3142
08/01/88 - 07/31/90 AoA : $ 0 $ 142,695 $ 188,756
HOUSING/LIVING ARRANGEMENTS

The Illinois Housing Leadership Network will be established as a system for housing planning, coordinated by the State Unit on Aging and operated at the local level by Area Agencies on Aging. The applicant will: develop and evaluate a participatory process for local housing planning; initiate improvements in State legislation, regulation and coordination among agencies and groups to increase housing alternatives for the elderly; and document the project and the outcomes for replication in other communities and States. The two-year project will operate in an area comprised of 16 urban to rural counties with a population of 670,000 elderly. Existing needs assessments, model legislation, zoning ordinances, and planning processes will be disseminated to and used by local planning councils to create acceptable housing alternatives for the elderly. Replication will be tested in the second year of the project. Dissemination will be ongoing and include publicity, public presentations and the national distribution of a 'How To' manual.

HOUSING/LIVING ARRANGEMENTS
 Demonstration

90AM0324
 West Virginia Commission on Aging
 State Capitol Complex
 Charleston, WV 25305
  CHOICE - Community Housing Options Impacting Care of the Elderly
Robert Bianchinotti
(304) 348-3317
08/01/88 - 07/31/91 AoA : $ 0 $ 200,000 $ 0
  HOUSING/LIVING ARRANGEMENTS;
  Community-based Care Systems Development/Improving Linkages

The grantee, in conjunction with the West Virginia Housing Fund, is coordinating a State initiative that will concentrate on developing a range of housing alternatives for West Virginia seniors which are supported by services that reinforce independent living. The target group for this project are West Virginians at risk of institutionalization, with major emphasis on rural models. The major thrusts of the project are: creation of a State level structure involving housing and social support agencies; design and implementation of a financing package to support development of new or modified housing options independent of Federal/State monies; development of a coordinated supportive service package for reinforcing various housing alternatives; implementation of a Statewide training program for effective impact; and a determination of specific alternate housing modes that will be culturally and financially acceptable for West Virginia's unique circumstances and population.

HOUSING/LIVING ARRANGEMENTS
 Demonstration

90AM0343
 North Carolina Department of Human Resources
 Division of Aging
 1985 Umstead Drive
 Raleigh, NC 27603
  Community-Based Housing - Aging in Place
Nita Stewart
(919) 733-3983
09/01/88 - 08/31/90 AoA : $ 0 $ 200,000 $ 200,000
  HOUSING/LIVING ARRANGEMENTS;
  Home Equity Conversion;
  Community-based Care Systems Development/Improving Linkages

The grantee, in conjunction with Area Agencies on Aging and the North Carolina Housing Finance Agency, seeks to improve existing housing stock and increase housing options for the elderly living in rural areas. The project involves the following initiatives: (1) development of affordable, quality housing options including adaptive reuse of existing structures by completing assessments, underwriting market studies and using innovative funding sources; (2) improving housing stock by enhancing existing home repair programs; and (3) study the possibility of developing Home Equity Conversion Programs. Results will be compiled, published and presented to government policy makers and key industry representatives. These reports will provide tools for further development of elderly housing.

INFORMAL CAREGIVING
 Demonstration

90AM0311
 Washington Business Group on Health
 229 1/2 Pennsylvania Avenue, S.E.
 Washington, DC 20003
  Partnerships in Aging: A Coalition Approach
Robert Levin
(202) 547-6644
09/30/87 - 09/30/90 AoA : $ 251,060 $ 236,334 $ 226,935
  INFORMAL CAREGIVING;
  Supportive Services

The Washington Business Group on Health grant focuses on the development of linkages between local business health coalitions and aging network programs. The project funds eight 'mini-grants' to local partnerships working on collaborative programs in behalf of the elderly. In addition, the project is conducting five briefings/conferences to promote project activities including three Congressional forums as well as major sessions in conjunction with two national conferences. Finally, the project produces a quarterly newsletter and a compendium of public/private initiatives in the areas of eldercare, health promotion and older worker programs.

PROJECT **FUNDING**
FY 1987 FY 1988 FY 1989

LEGAL SERVICES
Demonstration

90AM0338
Nevada Division for Aging Services
505 East King Street, #101
Carson City, NV 89710
Carson and Rural Elders (CARE) Law Project
Donna Schnieder
(702) 885-4210
09/30/88 - 09/29/90 AoA : $ 0 $ 68,457 $ 67,207
LEGAL SERVICES;
Protective Services;
Other

The Carson and Rural Elders (CARE) Law Project will demonstrate the delivery of legal assistance to homebound rural older persons in Nevada through a network of volunteer seniors, pro bono attorneys, the State's Legal Services Developer, and Nevada Legal Services working in conjunction with the State's Division for Aging services' Community Home-based Initiative Program (CHIP). The project will create a model for affording frail and homebound older people legal services. The services provided will be selected based upon the needs assessment performed at the beginning of the project. There are five specific objectives: completing a legal needs assessment; recruiting and training 'Senior Advocates'; involving pro bono attorneys; delivering legal services; and creating a comprehensive manual for replication elsewhere.

LEGAL SERVICES
Demonstration

90AM0352
Wisconsin Bureau on Aging
P. O. Box 7851
Madison, WI 53707
Assuring Quality and Accessibility of Legal Assistance to Vulnerable Elderly
James Kellerman
(608) 266-2695
09/30/88 - 09/29/90 AoA : $ 0 $ 165,413 $ 141,68
LEGAL SERVICES;
Community-based Care Systems Development/Improving Linkages;
Other

Wisconsin has a unique statewide legal services system which uses lay advocates located in county aging units. The lay advocates are supervised by attorneys located at the regional level. This study will conduct a statewide survey of legal needs of older people with special emphasis on the legal needs of minority older people (Black, Hispanic, and Indian). It will also assess the responsiveness of the system to those needs. Based upon the findings, the project will develop recommendations for systems improvement. The project will include implementing the study recommendations. The project will disseminate its findings and products (including the needs assessment methodology) nationally. The American Bar Association Commission on Legal Problems of the Elderly will serve as a contractor on this grant.

LEGAL SERVICES
Information Dissemination/Public Education

90AM0335
National Clearinghouse for Legal Services
407 South Dearborn, Suite 400
Chicago, IL 60605
Substantive Legal Assistance and Support
Michael Leonard
(312) 939-3830
09/30/88 - 09/29/90 AoA : $ 0 $ 66,903 $ 79,603
LEGAL SERVICES;
Other

This project will provide legal information and research services to providers of legal assistance to the elderly. The Clearinghouse will provide both legal services developers in State Agencies on Aging and staff of legal services providers supported under Title III of the Older Americans Act with: (1) computer-assisted legal research (CALR) and related services; (2) subscriptions to 'Clearinghouse Review' which reports on legal develpments affecting the nation's poor and is the only journal in the country devoted to poor people and the law; and (3) copies of judicial decisions, legal pleadings and other materials from its 44,000+ document collection. Data-bases supported include: LEXIS, WESTLAW, NEXIS, DIALOG, VARS, AUTO-CITE/INSTA-CITE, SHEPHARDS, AgeLine, ABLEDATA, and ELSS. Information on available resources and the use of these data bases is provided regularly in CCAR POOL, the NCLS newsletter.

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LEGAL SERVICES
Research

90AR0120
American Indian Law Center, Inc.
P. O. Box 4456 - Station A
Albuquerque, NM 87196
Legal Needs of American Indian Elders Research Project
Toby F. Grossman
(505) 277-5462
09/30/88 - 01/31/90 AoA : $ 0 $ 100,000 $
LEGAL SERVICES;
Protective Services:
Elder Abuse

The project has examined three levels of government - Tribal, Federal and State/county to determine the legal needs of American Indian Elders. The major areas of concern being studied include: guardianships, elder abuse, trust land leasing, access to human services programs, and lack of access to loans. The project has reviewed legal codes, including tribal codes, to determine their impact on Indian elders. The project has collected information from a range of organizations with responsibility for assisting Indian Elders. The result will be a final report which will survey the legal framework which supports the provision of services to Indian elderly, make recommendations for change, and provide a model tribal ordinance on guardianship. The project advisory board, which will play a major role in developing the project, includes many nationally recognized experts. An additional product of the study will be a collection of tribal codes in the University of New Mexico Law Library which will be available for inter-library loan. A synopsis of the final report will be published in the AILC Newsletter.

LEGAL SERVICES
Technical Assistance

90AM0330
Center for Social Gerontology
117 North First Street, Suite 204
Ann Arbor, MI 48104
A National Support Project to Enhance Legal Assistance to Older People
Penelope Hommel
(313) 665-1126
09/30/88 - 09/29/90 AoA : $ 0 $ 249,995 $ 275,000
LEGAL SERVICES:
Other

The project addresses aspects of all components of the legal assistance system to strengthen leadership roles of State Agencies on Aging in developing legal assistance for older persons. The project is based on a two-tiered approach to the delivery of technical assistance. Tier one is State-specific and will involve providing on-site training and assistance to 25 States over a two-year period. Using a menu system each State will be able to customize the training. Tier two is national support and will include: (1) providing advice and assistance upon request; (2) publishing "Best Practice Notes"; (3) serving as a clearinghouse for sample forms; (4) providing substantive legal assistance, case consultation, and training on alternatives to guardianship and other areas; (5) publishing "Headnotes" on substantive issues and (6) developing community legal education packets and updating "The Guide to Legal Assistance for Older Persons."

LEGAL SERVICES
Technical Assistance

90AM0331
Legal Counsel for the Elderly/AARP
1909 K Street, N.W. (LCE)
Washington, DC 20036
National Legal Assistance Support Project
Wayne Moore
(202) 833-6720
09/30/88 - 09/29/90 AoA : $ 0 $ 350,856 $ 417,70
LEGAL SERVICES;
Protective Services;
Other

This project will provide national legal assistance support by: (1) helping develop in 6 to 10 States the capacity to conduct training in substantive law and advocacy skills; (2) operating the National Support in Protective Services Law to assist advocates in promoting the independence and dignity of older persons by providing bi-monthly mailings and assistance upon request; (3) operating a library-by-mail program which will lend legal reference books to agency staff upon request; (4) establishing 3 to 5 Statewide volunteer advocac networks; (5) assisting states to develop Statewide Legal Hotlines based upon the model developed by LCE in Pennsylvania; (6) recruiting volunteers and providing technical assistance; and (7) providing technical assistance to Stat Agencies on Aging on implementation of legal assistance systems using innovative methods developed by LCE.

LEGAL SERVICES
Technical Assistance

90AM0344
American Bar Association
750 North Lake Shore Drive
Chicago, IL 60611
National Legal Assistance Support in Private Attorney Involvement
Nancy Coleman
(202) 331-2297
09/30/88 - 09/29/90 AoA : $ 0 $ 215,302 $ 226,069
LEGAL SERVICES;
Protective Services;
Other

The project will strengthen the leadership capacity of the State Agencies on Aging in the area of legal assistance. During 1988-89, the grant will facilitate: (1) increased private attorney involvement through pro bono, reduced fee and community education projects using assistance to State Agencies on Aging (SUAs) and State Bar Committees on the Elderly; (2) publication of: (a) 'BIFOCAL', (b) the 'Bulletin for Bar Committees on the Elderly', and (c) an updated 'Law and Aging Resource Guide'; (3) development of a pro bono recruitment video and a basic attorney's guide for effective representation of proposed wards in guardianship proceedings; (4) inform SUAs of legislative and policy developments in protective services; and (5) providing intensive assistance to SUAs in the development of: (a) coordinated Statewide legal assistance systems, (b) effective linkages with State court systems, (c) effective linkages with mediation and dispute resolution projects, and effective linkages with state Attorneys' General.

LEGAL SERVICES
Technical Assistance

90AM0347
National Senior Citizens Law Center
2025 M Street, N. W.
Washington, DC 20036
National Legal Assistance Support Project
Burton D. Fretz
(202) 887-5280
09/01/88 - 08/31/90 AoA : $ 0 $ 283,071 $ 300,00
LEGAL SERVICES;
Employment/Income Security;
Other

This project will provide national legal assistance support though: (1) Case Consultation -- will be available to State and Area Agencies on Aging, legal assistance developers and providers, ombudsman, and others involved in representing older people, including access to a staff of highly experienced attorneys with expertise in the areas of law most often of importance to older people; (2) Training -- will be provided for experienced advocates in SSI Non-disability Eligibility, Resources and Overpayment Issues and Age Discrimination; (3) Substantive Advice and Technical Assistance -- will be offered through telephone and written consultations, analysis, strategic planning, and through the preparation of articles and memoranda; (4) Design, Implementation, and Evaluation of Legal Assistance Delivery Systems -- to assist State and Area Agencies on Aging and legal assistance developers and providers; and (5) Publications -- 'Tax Reference Guide', 'Social Security Cookbook', 'The Rights of Older Workers', and 'Health and Pension Benefits After Retirement'.

LEGAL SERVICES
Technical Assistance

90AM0351
National Bar Association
1225 11th Street, N. W.
Washington, DC 20001-4217
Black Legal Assistance Support Project
Maurice Foster
(202) 842-3900
09/30/88 - 09/29/90 AoA : $ 0 $ 186,163 $ 214,251
LEGAL SERVICES;
Community-based Care Systems Development/Improving Linkages;
Other

This project will assist State Agencies on Aging (SUAs) to work with NBA chapters to encourage the increased recruitment and utilisation of Black attorneys in the delivery of legal assistance to the Black elderly, especially the poor. Specific strategies will be to increase the provision of Black lawyer pro bono legal assistance and jointly sponsored community legal education and outreach programs. The NBA will provide technical assistance to the SUAs and the NBA chapters. Project activities will include: holding a series of structured meetings to familiarize the SUAs and NBA Chapters with each other's capacity; updating the 'Directory of Minority Bar Association Committees on the Elderly' for distribution to the SUAs; providing legal support to Black pro bono attorneys; publishing quarterly updates about aging network and minority bar activities; and providing assistance to States in which cooperative programs are being developed to help the Black elderly poor.

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ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT	FUNDING FY 1987	FY 1988	FY 1989

MANAGEMENT OF AGING PROGRAMS
Demonstration

90AM0390
National Association of Area Agencies on Aging
Suite 208
600 Maryland Avenue, S.W.
Washington, DC 20024
Technical Assistance Guide to Model Program
Johnathan Linkous
(202) 484-7520
11/01/89 - 10/31/90 AoA : $ 0 $ 0 $ 65,488
MANAGEMENT OF AGING PROGRAMS:
Other

This project is a 12 month effort to assemble, analyze, and disseminate a compendium of successful projects, programs, and activities of Area Agencies on Aging. The material will be collected, prepared, and disseminated in accordance with guidelines developed by potential consumers of the data. A survey will be conducted of all 670 area agencies on aging requesting specific examples of innovative projects following instructions contained in a preprinted form. Once collected the responses will be entered on a computerized data base and an Area Agency Resource Guide will be published and widely distributed. In addition, a clearinghouse will be established and special workshops and sessions will be conducted to further disseminate the information.

MANAGEMENT OF AGING PROGRAMS
Research

National Indian Council on Aging
P.O. Box 2088
Albuquerque, NM 87102
Developing a National Agenda for NICOA and Forming State Indian Councils on Aging
Curtis Cook
(505) 242-9505
12/01/89 - 11/30/91 AoA : $ 0 $ 0 $ 150.00
MANAGEMENT OF AGING PROGRAMS:
Continuing Education and Training for Professionals and/or Paraprofessionals

This project provides an opportunity to envolve national, state and local entities in sharing in a national agenda to improve the lives of American Indian elders. The objectives are to develop and disseminate a national Indian agenda using a variety of presentation methods including discussion at national meetings of national organizations; focus groups at regional conferences; publish agenda related articles in national periodicals; produce audio visual materials and issue an interim report on project activities.

Year two activities include continuing efforts to establish three state Indian councils on aging; conduct a national conference and publish a final project report.

PREPARATION FOR AGING
Demonstration

90AM0313
The Conference Board
Human Resources Program Group
845 Third Avenue
New York, NY 10022
Education and Training to Prepare Social Institutions to Meet the Needs of an Aging Society
Helen Axel
(212) 339-0364
05/01/88 - 12/31/89 AoA : $ 0 $ 65,760 $ 0
PREPARATION FOR AGING:
Employment/Income Security

This program continues the training of corporate human resource personnel to better utilize and manage older workers. The product researrch component will attempt to determine why corporations offer retirement planning services and how they see their services changing in response to projected demography, economy, pensions, health care costs, etc. Five to ten human resource professionals will be interviewed. Most will have "hands on" experience in retirement planning.

PREPARATION FOR AGING
Demonstration

90AM0182
New Jersey Department of Community Affairs
Division on Aging
263 West State Street, CN 807
Trenton, NJ 08625
Model Program to Assist Selected Groups in Mid-Life to Understand Aging
Ronald Muzyk
(609) 292-3766
06/30/86 - 12/31/89 AoA : $ 44,450 $ 0 $ 0
PREPARATION FOR AGING;
Aging Population Characteristics/Needs

This project will develop four training modules: health, leisure time, financial planning, and general aging; for persons in mid-life in order to assist them in understanding the aging process and planning for their own later life. It will be demonstrated in work settings to a diverse group of employees. Evaluation will be in two parts, at the conclusion of the session and six months later to observe the impact of the program. Project objectives are: (1) to develop training materials which will assist persons in mid-life to plan for later life; (2) to field-test the materials at selected sites; and (3) to evaluate the results of the training materials and the impact upon the participants. The program will be designed for use nationwide and for diverse groups.

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PROTECTIVE SERVICES
Demonstration

90AM0263
Pierce County Area Agency on Aging
2401 S. 35th Street
Tacoma, WA 98409
Improved Access and Volunteer Community Services for the Unserved Elderly in Tacoma-Pierce County
David Jensen
(206) 591-6079
08/01/87 - 12/31/89 AoA : $ 169,395 $ 0 $ 0
PROTECTIVE SERVICES;
Supportive Services

This Neighbor-to-Neighbor Project will design and promote an informal neighborhood response system to reach approximately three hundred frail older persons in greatest social and economic need who are not receiving services from the formal services system and who are vulnerable to losing their independence and ability to live at home. Project will identify and train volunteers in selected communities to act as gatekeepers and develop local responses to the needs of these seniors in their specific communities. Three communities, two rural and one urban, will participate in the program based on senior population, social-economic mix, service utility patterns and sense of community . Expected outcomes and products: (1) Informal service systems responsive to specific needs in target communities; (2) Locally based gatekeeper programs in the target communities; (3) Implementation of a marketing plan to county residents which encourages development of Neighbor-to-Neighbor and the gatekeeping approach in other communities; and (4) instructional package for replication of Neighbor-to-Neighbor in other communities.

PROTECTIVE SERVICES
Demonstration

90AM0326
Ohio Department of Aging
50 West Broad Street, 9th Floor
Columbus, OH 43266-0501
Ohio Department of Aging/Trumbull County Probate Court Guardianship Diversion Project
Roland Hornbostel
(614) 466-1220
08/01/88 - 07/31/90 AoA : $ 0 $ 115,656 $ 128,378
PROTECTIVE SERVICES;
Other;
Legal Services

The Guardianship Diversion Project, located in the Trumbull County Probate court, will: (1) evaluate potential wards, seeking alternatives to guardianship to preserve maximum self-reliance and civil rights; (2) evaluate current wards and their guardians with efforts to establish less restrictive alternatives to guardianship; (3) provide on-going case management for clients in cooperation with social service providers; (4) present training workshops for attorneys, physicians, service providers and others to spread awareness of the objectives of the project and community resources; (5) develop materials for use by other probate courts including a manual, a software program, and a video. The results of the project will be presented at meetings of the National and State Probate Judges Associations and other appropriate forums.

PROTECTIVE SERVICES
Demonstration

90AM0346
Michigan Office of Services to the Aging
P. O. Box 30026
Lansing, MI 48909
Facilitating the Use of Alternatives to Gurdianship
Mary James
(517) 373-8563
09/30/88 - 09/29/90 AoA : $ 0 $ 146.106 $ 150.000
PROTECTIVE SERVICES;
Community-based Care Systems Development/Improving Linkages;
Legal Services

This project will test the use of a dispute resolution/mediation model to avoid the use of guardianship. The project will link community-based agencies which provide comprehensive assessment, care planning, service brokering and follow-up with the local Probate Court. The Project will provide comprehensive assessments of older individuals against whom guardianship petitions are filed. Specially trained support services/health services personnel will assess the individual's capacities, social support systems, and need for assistance. If an orchestrated array of support and/or money management services is sufficient to meet the individual's needs, mediation will be used to see if the petitioner and respondent can agree to such lesser intervention. To insure due process rights and a 'day in court' for both petitioner and potential ward, acceptance of alternatives will be voluntary and uncoerced. If agreement is not reached, the case will go forward but the evidence from the assessment will be available to the court The project will use control groups to test the effectiveness of the program

PROTECTIVE SERVICES
Demonstration

90AT0415
American Bar Association
Fund for Justice and Education
1800 M Street, N.W.
Washington, DC 20036
Training for Guardianship Alternatives
Nancy Coleman
(202) 331-2297
09/30/89 - 09/30/91 AoA : $ 0 $ 0 $ 99.9
PROTECTIVE SERVICES;
Other;
Continuing Education and Training for Professionals and/or Paraprofessionals

The American Bar Association Commission on Legal Problems and the Elderly and the Commission on the Mentally Disabled will develop and implement a demonstration national training module on alternatives to guardianship for the aging network and a range of professionals in aging, social and protective services, and legal services. The training module will be tested and evaluate at training sessions in three states in the first year and six additional states in the second year. An estimated 1800 individuals will be trained. Major products include a national training module with curriculum guides for trainers, including State-specific adaptations and a survey of programs providing guardianship alternatives and support services.

PROTECTIVE SERVICES
Research

90AM0381
AARP/Legal Counsel for the Elderly
P.O. Box 19269-GPCD
Washington, DC 20036
Money Management Program: A State Model
Terisita Pena
(202) 833-6720
09/30/89 - 09/29/91 AoA : $ 0 $ 0 $ 81.036
PROTECTIVE SERVICES;
Other;
Community-based Care Systems Development/Improving Linkages

This project will develop a statewide model of early intervention services as an alternative to guardianships for older people. It will serve people in the least restrictive manner including: (1) self help materials on money management; (2) bill payer services; and (3) representative payee services. It will combine the expertise and experience of a State Unit on Aging, local social service agencies, and the Social Security Administration to recruit, train, coordinate and monitor volunteers to perform these three early intervention services. The project will establish projects in three communities in one state to provide this full range of money management services; to develop a structure at the state level to coordinate and monitor these projects; and to create a structure within AARP/LCE to allow replication of this model in other states. The project will develop self help materials suitable for low income and minority older people; training materials; and materials which will assist a state to replicate the model. AARP will continue to provide support to states replicating the model.

ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT — FUNDING
FY 1987 — FY 1988 — FY 1989

QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM0327
Wyoming Commission on Aging
139 Hathaway Building
Cheyenne, WY 82002-0710
Quality Assurance - for In-Home Care
Margaret A. Acker
(307) 777-7986
09/30/88 - 02/28/90 AoA : $ 0 $ 90,800 $ 0
QUALITY ASSURANCE/IN-HOME SERVICES;
Supportive Services

This project will assist in the efforts of providing or purchasing in-home services, improving monitoring mechanisms as a cost-effective, efficient measure of the existing in-home care program in the State. An instrument to measure quality assurance, based on in-home care standards, was developed in 1987 at the Commission. This tool will be statistically analyzed and training will be provided to appropriate personnel in ten project sites across Wyoming. Due to the rural nature of the State, many of the case managers, caregivers, and other local project personnel have not had access to the training and technical assistance on quality assurance monitoring for in-home care. The focus of this grant will be to fill this gap and to develop a model which can be replicated in other rural areas with similar service systems.

QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM0328
Tennessee Commission on Aging
706 Church Street, Suite 201
Nashville, TN 37219-5573
A Model Development for a Quality Assurance System for In-Home Supportive Services
Mason Rowe, M.
(615) 741-2056
09/01/88 - 08/31/90 AoA : $ 0 $ 150,000 $ 150.0
QUALITY ASSURANCE/IN-HOME SERVICES;
Community-based Care Systems Development/Improving Linkages

The project will be conducted by the Tennessee Commission on Aging in collaboration with the University of Tennessee, the Delta Area Agency on Aging the Foundation for Hospice and Homecare, National Homecaring Council, and loca providers. Its purpose is to develop a model system for assuring the quality of non-medical in-home services, offered in conjunction with or separate from medical in-home services. Project objectives are to develop an in-depth client-service profile and provider inventory; to examine the interface betwe providers and recipients; design and test a system for the recruitment, training, and appropriate placement of in-home service workers; develop procedures to measure quality of care, including elements such as client functioning, outcome, and client/caregiver satisfaction. This model will target individuals isolated by economic and social factors, especially low-income minority individuals.

QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM0329
Maryland Office on Aging
301 West Preston Street
Baltimore, MD 21201
A Model Apprenticeship Program for Paraprofessional Home Care Workers
Suzanne Bosstick
(301) 225-1083
09/30/88 - 12/29/89 AoA : $ 0 $ 147,944 $ 0
QUALITY ASSURANCE/IN-HOME SERVICES;
Community-based Care Systems Development/Improving Linkages;
Career Preparation for Professionals and/or Paraprofessionals

The outcome of this project will be a model apprenticeship program for paraprofessional home care workers. While apprenticeships are common among professionals and tradespeople, the concept has not been used for these paraprofessionals who provide the majority of home care services. The program will allow them to test, in a "real life" setting, the skills they learned in formal training. The project will produce a model that agencies responsible for setting quality standards can replicate.

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QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM0333
Wisconsin Department of Health and Social Services
Wisconsin Bureau on Aging
P.O. Box 7851
Madison, WI 53707
Designing a Process for Quality Improvement Applying Private Industry Principles of Quality to In-Home Services for the Elderly
Janice Smith, MSW
(608) 266-7872
09/30/88 - 09/30/90 AoA : $ 0 $ 120,381 $ 128,81
QUALITY ASSURANCE/IN-HOME SERVICES;
Community-based Care Systems Development/Improving Linkages

This project will demonstrate an alternative approach to assuring quality of in-home long term care for older persons. The feasibility of incorporating quality assurance approaches proven effective in business and industry and popularized by W. Edwards Deming, first in Japan and more recently in this country, will be explored. Building upon two prior Administration on Aging quality assurance grants, the Wisconsin Bureau on Aging (in cooperation with the Wisconsin Bureau of Long Term Support) will develop a quality assurance model, using Deming's philosophy as an integrating approach. Products will include: model definitions, indicators and measures of quality elements; a model assessment process; and an implementation plan for a quality improvement process in Wisconsin.

QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM0334
Arizona Department of Economic Security
Aging and Adult Administrators
1400 W. Washington Street, 950A
Phoenix, AZ 85007
Training and Certification of Entry Level Nurse's Aides
Ruth Houghton
(602) 255-4446
09/30/88 - 09/29/90 AoA : $ 0 $ 53,484 $ 53,484
QUALITY ASSURANCE/IN-HOME SERVICES

The project plans to: (1) standardize training for entry level personnel employed in nursing and by home health agencies; (2) make training available in all geographic areas of Arizona; and 3) develop a practical system for certifying nurse's aides. It will offer training through community colleges throughout Arizona after piloting the course of study in one urban and one rural county to 72 persons currently employed as nurse's aides. Expected outcomes include: the establishment of a 'student tested' course of study for entry level nurse's aides which will satisfy federal requirements for training; and the preparation of formal recommendations for possible options to be used by the state of Arizona for certification of nurse's aides.

QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM0335
New York State Office for the Aging
Empire State Plaza
Albany, NY 12223
Design and Implementation of a Quality Assurance Model for In-Home
John Wren
(518) 474-3362
09/30/88 - 09/30/90 AoA : $ 0 $ 135,000 $ 135,00
QUALITY ASSURANCE/IN-HOME SERVICES;
Supportive Services

This project will establish a model system for assuring the quality of publicly funded in-home supportive services for the elderly. The basic premise of the project is that consistent and uniform standards and monitoring tools will ensure quality. A model system will be sequentially refined in three phases: retrospective, concurrent, and prospective. The retrospective model will review service performance after the fact. In the concurrent model, it is possible to use feedback to impact service delivery as it occurs. The prospective model is designed to determine problem potential and, ultimately, to avoid problems. All three phases focus on client outcomes.

ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT — FUNDING: FY 1987 — FY 1988 — FY 1989

QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM0336
Colorado Department of Social Services
Aging and Adult Services Division
1575 Sherman Street, 10th Floor
Denver, CO 80203-1714
An Integrated Quality Assurance System for Home-Based Services
Joan Bell, MSW
(303) 866-5912
09/30/88 - 09/30/90 AoA : $ 0 $ 149,774 $ 149,679
QUALITY ASSURANCE/IN-HOME SERVICES;
Community-based Care Systems Development/Improving Linkages

The Colorado State Unit on Aging will direct a statewide collaborative effort to develop an integrated system for assuring the quality of in-home supportive services for older persons. The resultant model system will include: intermediate sanctions to address sub-standard service provision; a model monitoring instrument and client checklist; revised contracting practices; a consumer education component; computer-assisted tracking; an expanded ombudsman role; a complaint/reporting system; an analysis of existing standards; an evaluation model to measure effectiveness; and the establishment of a home care advisory council.

QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM0337
Florida Department of Health and Rehabilitative Services
Aging and Adult Services Program Office
132[illegible] Winewood Boulevard
Tallahassee, FL 32339-0700
Targeted Innovative Strategies for Assessing Quality of In-Home Services to the Elderly.
Kathy Pilkenton
(904) 488-2881
09/30/88 - 09/30/90 AoA : $ 0 $ 147,717 $ 134,54
QUALITY ASSURANCE/IN-HOME SERVICES;
Supportive Services

This project will improve methods of assuring the quality of homemaker and home delivered meal services provided to frail home-bound elderly. Outcomes planned are: (1) a standarized orientation for homemaker service workers; (2) client understanding of what constitutes quality services; (3) a comparison of the cost-effectiveness of proprietary agency services and non-profit agency services; and (4) improved management procedures based on telephone surveys of recipients. Products will include a video-tape to educate clients and serve as a sensitizing and modeling tool for in-home service workers, a report on the cost and performance of proprietary versus non-profit programs, and findings regarding the feasibility of automated telephone monitoring as a quality assessment technique.

QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM0341
Virginia Department for the Aging
Division of Program Development
700 E. Franklin Street, 10th Floor
Richmond, VA 23219
A Consumer Protection Program for Home Care Consumers: Assuring Home Care Quality through the Long-Term Care Ombudsman Program
Virginia Dize
(804) 225-2271
09/30/88 - 09/29/90 AoA : $ 0 $ 51,512 $ 62,000
QUALITY ASSURANCE/IN-HOME SERVICES

The Virginia Department for the Aging, through the Office of the State Long-Term Care Ombudsman, will develop and implement a model consumer protection program for home care users utilizing trained volunteer mediators and self-advocacy training for consumers and their families. When this model project is completed in two years, five Regional Home Care Ombudsmen, supervised by the State Ombudsman Program, will implement the program. In addition, the program will focus on the consumer as a major player in assuring quality care. Products include: brochures and consumer guides for home care consumers; a consumer awareness training package for home care consumers; a home care complaint procedures manual; training modules for professional staff and volunteers in the model program; and a program evaluation report.

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QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM0342
South Carolina Commission on Aging
400 Arbor Lake Drive, Suite B-500
Columbia, SC 29223
Quality Assurance for In-Home Services
Alfa Tisdale
(803) 735-0210
09/30/88 - 09/29/90 AoA : $ 0 $ 138,646 $ 149,8
QUALITY ASSURANCE/IN-HOME SERVICES

The proposal seeks to improve service delivery through the design, implementation, and evaluation of a comprehensive quality assurance system focusing on homebound elderly at risk for institutionalization. The overall goal is to enable management to make accurate, accountable, hard-line decision in allocating limited resources to assure access and quality service to the most needy.

QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM0345
Ohio Department of Aging
Division of Health & Community Services
50 W. Broad Street, 9th Floor
Columbus, OH 43266-0501
Ensuring the Quality of In-Home Supportive Services: A Model for the Aging Network
Karen Crosman
(614) 466-5623
09/30/88 - 09/30/90 AoA : $ 0 $ 137,072 $ 149,910
QUALITY ASSURANCE/IN-HOME SERVICES:
Supportive Services

This project will be conducted in collaboration with the Scripps Gerontology Center at Miami University. It will develop, implement, and evaluate a system to ensure the quality of in-home supportive services for vulnerable older persons. The services that will be examined are home delivered meals, transportation, housekeeping, home health, homemaker, personal care, home maintenance, and chore services. The aims are to: design and implement quality assurance procedures to be tested by selected AAAs in preparation for Statewide implementation; develop an evaluation design that both provides evidence concerning the system implemented and documents on-going experience in evaluating such a system; produce a technical manual on quality assurance; develop a consumer guide on quality assurance for supportive services; publish a paper on future research issues; and organize a national conference on quality of in-home care for practitioners, administrators, and researchers.

QUALITY ASSURANCE/IN-HOME SERVICES
Demonstration

90AM034[illegible]
Illinois Department on Aging
Division of Long-Term Care
421 East Capitol Avenue
Springfield, IL 6[illegible]701
A Comprehensive Quality Assurance Program for Community-Based Long Term Care
C. Jean Blaser
(217) 785-3353
09/30/88 - 09/29/90 AoA : $ 0 $ 146,082 $ 149,99
QUALITY ASSURANCE/IN-HOME SERVICES:
Supportive Services

The Illinois Department on Aging (IDoA), in cooperation with Northwestern University, will conduct the following activities: (1) review existing quality assurance strategies of States, private and voluntary agencies, as well as findings from AoA-sponsored projects and other relevant research; (2) review (including input from service providers) current IDoA quality assurance procedures for chore/homemaker and adult day care services; and (3) analyze the existing IDoA data base to obtain estimates of the reliability and validity of the measures currently used by IDOA, to eliminate redundant items and to identity quality assurance areas needing improvement. The program will develop a comprehensive multidimensional quality assurance program model and will field test those components of the model which are applicable and practical for implementation in Illinois.

ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT	FUNDING FY 1987	FY 1988	FY 1989

SUPPORTIVE SERVICES
Demonstration

06AG0318
Arkansas Department of Human Services
Division of Aging and Adult Services
Suite 1417, Donaghey Plaza South
Little Rock, AR 72203-1437
Project 2000: Long-Term Care in Arkansas
Herb Sanderson
(501) 682-2441

08/01/86 - 06/30/90	AoA : $ 0	$ 242,022	$ 0

SUPPORTIVE SERVICES;
Community-based Care Systems Development/Improving Linkages

Directed by the Arkansas SUA, with commitments from major public and private agencies, this project is aimed at producing significant systems change in the planning and utilization of long term care services. It encompasses private sector development of residential care facilities, feasibility studies on LTC insurance and S/HMOs, and volunteer-led local coalitions as key participants in the development and implementation of long term care systems.

SUPPORTIVE SERVICES
Demonstration

90AM0268
Maryland Department of Health and Mental Hygiene
Preventive Medicine Administration
201 West Preston Street, Room 303
Baltimore, MD 21201
Training Caregivers in Occupational Therapy Skills
Constance McDonnell
(301) 225-6764

08/01/87 - 12/31/89	AoA : $ 164,895	$ 0	$

SUPPORTIVE SERVICES;
SUSR;
Health Care/Services - Physical

A study group of 2[illegible] at-risk elderly with problems in accessing services will be identified through the local geriatric evaluation services and project Gateway II Programs. These state-supported programs provide a variety of services to health-impaired elderly. In-home occupational therapy services to elderly Maryland project participants, and education and skills training to their caregivers will be provided through agreements with the Maryland state department of health and mental hygiene and local health department and sub-contracts to occupational therapists. Project goals are to increase the elderly's functioning; increase knowledge and utilisation of occuptional therapy concepts, skills and techniques; and decrease stress in the elderly and their caregivers. Caregivers will be educated and trained to become more skilled and knowledgeable health promoters for their vulnerable dependents. The outcomes will include training materials for the elderly and caregivers.

SUPPORTIVE SERVICES
Demonstration

90AM0304
Kennebec Valley Regional Health Agency
P.O. Box 728
Waterville, ME 04901
Public Housing Resident Supportive Services Program
Daniel Crocker
(207) 873-1127

09/30/87 - 09/29/90	AoA : $ 50,000	$ 50,000	$ 50,000

SUPPORTIVE SERVICES

The Project will provide subsidized supportive services to 40 low income elderly residents of Public Housing, through a program named INDEPENDENCE PLUS. Services will be provided as a package or on an individual basis through a voucher system. The purchase of services will be made in a manner no different than for persons who are participating in INDEPENDENCE PLUS as unsubsidized consumers. The project will develop other sources of support for low-income consumers to continue in the program after federal support ends.

BEST COPY AVAILABLE

SUPPORTIVE SERVICES
Demonstration

90AM0305
Visiting Nurse Association of Texas
8200 Brook River Drive, Suite 200N
Dallas, TX 75247
Supportive Services/Low Income Elderly in Public Housing
Susan Seifert
(214) 689-0009
09/30/87 - 09/29/90 AoA : $ 50,000 $ 50,000 $ 50,00
SUPPORTIVE SERVICES

The project will provide supportive services to low income elderly living in public housing. The aim is to determine what supportive services they will choose when given buying power. At least 40 elderly residing in Dallas Housing Authority developments will be served. They will receive drawdown accounts to purchase services such as housekeeping, meal preparation, personal care services, laundry and bed change, grocery shopping, transportation/escort services, and home delivered meals. Services will be delivered through a case management system, with some provided directly by the VNA. Others will be provided through contractors, and others through referral to existing community resources. Expected benefits include a prolonged period of independence for the client and access to an expanded range of services. The public housing authority should benefit in better-maintained units and the improved functioning of their residents. Data on purchasing choices will also be available for analysis. The results may demonstrate the value of a coordinated program of supportive services, and may encourage the permanent provision of such services in public housing units.

SUPPORTIVE SERVICES
Demonstration

90AM0306
Visiting Nurse Association of Delaware
2713 Lancaster Avenue
Wilmington, DE 19805
Providing Supportive Services to Low Income Persons 65 and Older
Marsha Spear
(302) 323-8200
09/30/87 - 09/29/90 AoA : $ 50,000 $ 50,000 $ 50,000
SUPPORTIVE SERVICES

The project will subsidize supportive services to 250 low income elderly residents of the Wilmington Housing Authority. The objective is to determine if these consumers demonstrate the same types of purchasing behavior as individuals with private funds. Enhanced independence and delay of institutionalization are the expected outcomes. Provision of supportive services will enable a higher level of functioning for elderly whose impairments may reduce independence. The program will identify through market research the supportive services needed in the community; and based on these analyses, expand the availability of nontraditional health and health-related services for the elderly. The project will demonstrate a new mechanism for financing supportive services through prospective, capitated reimbursement.

SUPPORTIVE SERVICES
Demonstration

90AM0307
Visiting Nurse Services Affiliates
400 North 34th
Suite 308
Seattle, WA 98103
Support Services Program for Older Persons
George Smith
(2) 065-4881
09/30/87 - 09/30/90 AoA : $ 50,000 $ 50,000 $ 50,0
SUPPORTIVE SERVICES

Project will provide supportive services to residents of Public Housing in Seattle. Approximately 40 persons will participate in the project. Each participant will be eligible for up to a $1,000 annual voucher that can be exchanged for the provision of a variety of supportive services. Consumers will choose from a menu of services which previous research indicates are needed and wanted. Project will explore innovative purchase of service option and attempt to be financially self-supporting after federal support ends.

ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT	FUNDING FY 1987	FY 1988	FY 1989

SUPPORTIVE SERVICES
Demonstration

90AM0372
Nebraska Department on Aging
P.O. Box 95044
Lincoln, NE 68509
Development of Rural Senior Centers as Community Focal Points
Keith Taylor
(404) 471-2306
09/01/89 - 08/31/91 AoA : $ 0 $ 0 $ 191,165
SUPPORTIVE SERVICES

This project will develop, evaluate, and disseminate a methodology for the development of community focal points in rural areas. Through the collaboration with State and local agencies, four rural county senior centers will be converted to community focal points. State and Community Resource Councils will be developed to enhance the awareness of available services and cooperation among all agencies in the delivery of services. The National Council on Aging will be a subcontractor to assist in the adoption of its manual, Comprehensive Service Delivery Through Senior Centers and Other Community Focal Points: A Resource Manual, to focus on rural areas. The University of Nebraska Medical Center will develop and implement evaluation instruments to measure the outcome of the project. Products to be developed include the adopted Resource Manual, models for State and Community Resource Councils, and a video package for use in workshops at State, Regional, and national levels.

SUPPORTIVE SERVICES
Technical Assistance

90AT9999
National Council on Aging
600 Maryland Avenue, SW
West Wing 100
Washington, DC 20024
Improving Senior Center Standards
Lorraine Lidoff
(202) 479-1200
05/01/89 - 09/30/90 AoA : $ 0 $ 0 $ 171,70
SUPPORTIVE SERVICES;
Community-based Care Systems Development/Improving Linkages

This project will update Senior Center standards and the companion self-assessment workbook. NCOA will develop and utilize an advisory committee to review existing standards and assist with appropriate changes. The next phase of the project will be to field-test the revised standards and workbook at 10 participating Senior Centers. The third phase includes final editing, publication, and dissemination. Another goal is that of developing a brochure describing the revised standards and workbooks, and distributing them to 14,00 Senior Centers.

TARGETING RESOURCES
Information Dissemination/Public Education

90AM0353
National Caucus and Center on Black Aged
1424 K Street, N.W., Suite 500
Washington, DC 20005
Capacity Building for Black Local Elected Officials on Programs and Services for the Elderly
Irene Packer
(202) 637-8405
09/30/88 - 06/30/90 AoA : $ 0 $ 200,000 $ 188,756
TARGETING RESOURCES;
Community-based Care Systems Development/Improving Linkages;
Continuing Education and Training for Professionals and/or Paraprofessionals

The project will increase the capacity of Black elected officials to collaborate with the Aging Network in increasing Black elderly participation in programs for the elderly. Goals of the project are to: (1) develop a network of Black local elected officials working with the Aging Network; (2) develop training materials to make these officials better informed about available programs for the elderly; (3) conduct training programs for the officials; and (4) assist national and State task forces to identify and establish specific program activities to be implemented. Major products will be: a report containing information on Federal and State programs for the elderly; 'best practice' models for promoting minority participation; and a training curriculum to train the elected officials.

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TARGETING RESOURCES
Information Dissemination/Public Education

90AM0155
Asociacion Nacional Pro Personas Mayores
2727 West Sixth Street, Suite 270
Los Angeles, CA 90057
Project Prosalud
Carmela Lacayo
(213) 487-1922
09/30/88 - 02/28/90 AoA : $ ____0 $ 200,000 $ ____
TARGETING RESOURCES;
Health Promotion/Health Education

The purpose of this grant is to develop health promotion materials and activities targeted to Hispanic elderly. Goals of the project are to: (1) promote wellness and disease prevention among Hispanic elderly; (2) increase Hispanic elderly access to and use of health services, Title III and other social services; (3) enhance the Aging Network's ability to develop and coordinate family and community-based care for Hispanic elderly; and (4) assist the families of Hispanic elderly to prepare for their own aging.

TARGETING RESOURCES
Information Dissemination/Public Education

90AM0374
American Society on Aging
833 Market Street
Suite 512
San Francisco, CA 94103
National Low Income, Minority Elder Initiative: Focus on National, Community and Organizational Change
Edgar Rivas
(415) 543-2617
09/30/89 - 09/29/91 AoA : $ ____0 $ ____0 $ 150,000
TARGETING RESOURCES;
Community-based Care Systems Development/Improving Linkages;
Other

This project will facilitate national visibility for minority elderly by: developing a national task force on minority elders; convening leadership roundtables and follow-up activities in 3 communities; selecting 8 minority professionals for leadership development; inviting minority professionals and elders to join ASA; and sensitizing the ASA board to minority elderly needs. Products will include a background statement and policy document, a facilitators handbook; program guides for roundtables, and newspaper articles.

TARGETING RESOURCES
Information Dissemination/Public Education

90AM0377
National Council of La Raza
810 First Street, N.E., Suite 300
Washington, DC 20002
Ancianos Network: Hispanic Elderly Network
Charles Kamasaki
(202) 289-1380
09/30/89 - 09/29/91 AoA : $ ____0 $ ____0 $ 149,77
TARGETING RESOURCES;
Community-based Care Systems Development/Improving Linkages;
Other

Project goals are to: (1) establish a low-income elderly agenda within the La Raza policy analysis and advocacy agenda; (2) establish a national network of 50 Hispanic community-based groups committed to serving the elderly; and (3) increase the capacity of these groups to serve the elderly. Products will include: policy analysis reports; newsletters; a guide to help Hispanic groups become involved in elderly services; a manual to help mainstream aging entities serve Hispanics; and three documented program models.

PROJECT — **FUNDING**
FY 1987 **FY 1988** **FY 1989**

TARGETING RESOURCES
Information Dissemination/Public Education

90AM0378
Gerontological Society of America
1275 K Street, N.W.
Suite 350
Washington, DC 20005-4006
Developing Low Income Minority Elderly Agenda in National Organizations
John Cornman
(202) 842-1245
09/30/89 - 09/29/91 AoA : $ 0 $ 0 $ 111,402
TARGETING RESOURCES:
Continuing Education and Training for Professionals and/or Paraprofessionals;
Other

Objectives of the project are to: (1) strengthen the society's commitment to minority aging research; (2) increase public awareness of minority aging concerns; and (3) expand the knowledge base of minority elderly. A variety of activities will include: sessions on minority aging issues at GSA meetings; support of a society-wide task force on minority issues in gerontology presenting sessions on minority aging at conferences of national minority organizations; supporting post-doctoral fellows to assist state and area agencies on aging serve minority elderly; convene a conference of researchers; and publication of a minority research agenda. Products include: an information packet on minority elderly; fellowship program project highlights; a research agenda; press releases and various workshops.

TARGETING RESOURCES
Technical Assistance

90AM0373
Special Service for Groups
National Pacific/Asian Resource Center on Aging
2033 Sixth Avenue Suite 410
Seattle, WA 98121
Critical Challenges: Emerging Pacific/Asian Populations
Louise M. Kamikawa
(206) 448-0313
08/01/89 - 07/31/90 AoA : $ 0 $ 0 $ 200,00
TARGETING RESOURCES:
Community-based Care Systems Development/Improving Linkages;
Supportive Services

The National Pacific/Asian Resource Center on Aging serves as a source of data, technical assistance, and information about the needs of the Pacific/Asian elderly. This project will place special emphasis on providing technical assistance to national Pacific/Asian organizations and activities aimed at increasing the use of SSI and Medicaid by Pacific/Asian elderly in need. It will also develop specific outreach techniques to be used by the Pacific/Asian national network for the 1990 Census to encourage greater particiaption by Pacific/Asian older people. The project will publish 6 issues of the Center newsletter "Update."

TARGETING RESOURCES
Technical Assistance

90AM0380
National Association of State Units on Aging
2033 K Street, N.W.
Suite 304
Washington, DC 20006
Institutionalizing an Agenda for Low Income Minority within NASUA and State Units on Aging
Sara Aravanis
(202) 785-0707
09/30/89 - 09/29/91 AoA : $ 0 $ 0 $ 148,908
TARGETING RESOURCES:
Community-based Care Systems Development/Improving Linkages;
Other

This project will expand the NASUA low income minority elderly agenda and stimulate interest at the State policy and programming level. The project will: promote the use of State minority task forces; stimulate collaboration with national organizations; test pilot projects and institutionalize project results with NASUA. Products will include: a technical assistance manual on State minority task forces; a resource manual for other State government associations; position papers; profiles of pilot projects; and modification of NASUA training materials and seminars.

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NATIONAL LEADERSHIP INSTITUTE ON AGING
Center

90AT0403
University of Colorado at Denver
Graduate School of Public Affairs
1200 Larimer Street, Box 142
Denver, CO 80204
Executive Leadership Institute on Aging
Dail Neugarten, Ph.D.
(303) 628-8644
09/30/88 - 09/30/91 AoA : $ ___0 $ 326,890 $ 374,921
NATIONAL LEADERSHIP INSTITUTE ON AGING;
Continuing Education and Training for Professionals and/or Paraprofessionals;
Preparation for Aging

The National Leadership Institute on Aging provides ongoing, high quality leadership development and training to aging network executives and others who work with and for older Americans. The curriculum is designed to strengthen the leadership capacity of key executives who have major responsibility for directing programs which serve and affect the lives of older persons in today's aging society. Training sessions place great emphasis on: (1) recognizing and influencing emerging social, economic and political trends; (2) reconciling divergent policy and financial considerations; and (3) blending public and private resources into integrated and effective community-based service systems for older Americans and their caregivers. This training goes beyond traditional management approaches by seeking to inspire aging network executives to new ways of thinking and acting in their roles as executives in an aging society.

NATIONAL AGING RESOURCE CENTER - LONG TERM CARE
Center

90AT0383
Heartland Center on Aging/National Center for Senior Living
University of Indiana-Business/JPEA Building
801 Western Michigan Avenue
Indianapolis, IN 46202
National Long Term Care Resource Center - Data Assistance
Karen Harlow, Ph.D.
(800) 347-3316
09/30/88 - 09/30/91 AoA : $ ___0 $ 199,616 $ 399,998
NATIONAL AGING RESOURCE CENTER - LONG TERM CARE;
Community-based Care Systems Development/Improving Linkages

The Heartland Center, administered by Indiana University and the National Center for Senior Living, provides training, technical assistance, short term research, and information dissemination in support of State Agencies on Aging and others in the areas of long term care planning and data analysis. The Center is developing: (1) technical assistance guides; (2) state, regional, and national training sessions; (3) a practitioner fellowship program; (4) special data analysis; and (5) other products to orient aging network personnel in providing the planning and management of long term care service delivery.

NATIONAL AGING RESOURCE CENTER - LONG TERM CARE
Center

90AT038.
National Association of State Units on Aging
2033 K Street, N.W. Suite 304
Washington, DC 20006
National Community-Based Long Term Care Resource Center
Diane Justice
(202) 785-0707
10/01/88 - 09/30/91 AoA : $ ___0 $ 198,190 $ 399,712
NATIONAL AGING RESOURCE CENTER - LONG TERM CARE;
Community-based Care Systems Development/Improving Linkages

The National Association of State Units on Aging has established a National Long Term Care Resource Center to: (1) assist state aging networks to integrate discrete community long term care program components into comprehensive systems of care; (2) enhance states' capacities to develop quality assurance initatives for community long term care systems; and (3) increase the ability of states to better link their community long term care systems with other delivery systems providing older people acute, primary and institutional care. The Center will provide information on multiple approaches to each of these system functions so that states can choose the ones most applicable to their own local context. The project will accomplish the objectives by continuing education and skill building for aging network personnel working at multiple levels of expertise through training, technical assistance, peer consultation, and indirect technical assistance in the form of training curricula, resource directories, guidebooks, education videotapes, compendium of tools, special issue manuals and papers, focus groups, published proceedings, and state profiles of expenditures and other community-based long term care data.

ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT	FUNDING FY 1987	FY 1988	FY 1989

NATIONAL AGING RESOURCE CENTER - LONG TERM CARE
Center

90AT0385
University of South Florida
Suncoast Gerontology Center
MDC Box 50, 12901 North 30th Street
Tampa, FL 33612
National Long Term Care Resource Center
Eric Pfeiffer, M.D.
(813) 974 4355
09/30/88 - 09/30/91 AoA : $ 0 $ 200,000 $ 400,000
NATIONAL AGING RESOURCE CENTER - LONG TERM CARE;
Community-based Care Systems Development/Improving Linkages

The University of South Florida's Suncoast Gerontology Center has established a National LTC Resource Center with a special focus on Alzheimer's Disease and other dementias. The Center is designed to respond to the needs and priorities identified by State Agencies on Aging as they plan, develop and implement programs and services for Alzheimer's Disease victims and their family caregivers, with a special focus on the needs of elderly minorities. The Center provides State Agencies with information, national and regional training sessions, and technical assistance in establishing effective, comprehensive and coordinated statewide service systems and programs to recognize, diagnose, and provide short term treatment and long term management to Alzheimer's Disease patients, and meet the needs of their family caregivers. Center products include a computerized knowledge base, a quarterly newsletter and applied research publications, including best practice guides for educating minority caregivers, providing respite care, and dementia specific care units.

NATIONAL AGING RESOURCE CENTER - LONG TERM CARE
Center

90AT0[illegible]
University of California at Los Angeles
Department of Medicine and Geriatrics
405 Hilgard Avenue
Los Angeles, CA 90024-1406
National Long Term Care Center - Linkages
John Beck, M.D.
(213) 825-8255
09/30/88 - 09/30/91 AoA : $ 0 $ 200,000 $ 399,951
NATIONAL AGING RESOURCE CENTER - LONG TERM CARE

The UCLA Department of Medicine, in collaboration with the USC Andrus Gerontology Center, has established a National Long Term Care Resource Center to carry out training, technical assistance, short term research, and information dissemination activities. These activities are designed to promote stronger linkages between the aging network, hospitals, and residential long-term care facilities, decrease fragmentation and encourage more appropriate utilization by providers and consumers of the full range of options available to older persons to remain independent. Topic areas to be covered by the Center are: (1) geriatric assessment programs; (2) discharge planning; (3) respite care; and (4) supportive housing and home modifications. Major products will include: annotated bibliographies; training manuals and videotapes; case analyses on model programs; policy papers; a newsletter; and consumer booklets.

NATIONAL AGING RESOURCE CENTER - LONG TERM CARE
Center

90AT0387
University of Minnesota
School of Social Work
Box 729 Mayo
Minneapolis, MN 55455
Long Term Care National Resource Center - Decisions
Rosalie Kane, D.S.W.
(612) 624-6151
09/30/88 - 09/30/91 AoA : $ 0 $ 200,000 $ 400,000
NATIONAL AGING RESOURCE CENTER - LONG TERM CARE;
Community-based Care Systems Development/Improving Linkages

The University of Minnesota National LTC Resource Center will provide technical assistance, training, short range research and dissemination to improve LTC decisions made by the elderly and those working with and for older persons, especially staff of State Agencies on Aging and their Area Agencies on Aging. The topic areas covered by the Center include: assessment; case management; linkages between community level care and nursing home and acute care facilities; and ethics of long term care. The Center will bring together faculty from the University Schools of Public Health, Social Work, Public Affairs, and the Center for Biomedical Ethics.

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NATIONAL AGING RESOURCE CENTER - LONG TERM CARE
Center

90AT0388
Brandeis University
Bigel Institute for Health Policy, Heller Graduate School
415 South Street
Waltham, MA 02254
Long Term Care National Resource Center - Coordinated Service Systems
John Capitman, Ph.D.
(617) 736-3932
10/01/88 - 09/30/91 AoA : $ 0 $ 199,919 $ 473,779
NATIONAL AGING RESOURCE CENTER - LONG TERM CARE

The Florence Heller Graduate School of Brandeis University has established a LTC National Resource Center to provide training, technical assistance, short term research, and dissemination activities in support of State Agencies on Aging and Ara Agency roles in policy-making, program planning and program implementation capacities as they manage long term care delivery. The topical areas covered by the Center are: integrated delivery systems, home care personnel and quality issues, and cultural diversity and the aging serbvices workforce. The Center products will include national training workshops, training manuals, on-site technical assistance, best practice materials, and periodic letters to the State Agency on Aging Directors.

NATIONAL AGING RESOURCE CENTER - HEALTH PROMOTION AND WELLNESS
Center

90AT0157
American Association of Retired Persons (AARP)
Program Department
P.O. Box 19269 - GPCD
Washington, DC 20036
Health Promotion and Wellness National Resource Center
Thomas Nelson, Ph.D.
(202) 728-4350
09/30/88 - 09/29/91 AoA : $ 0 $ 331,008 $ 486,980
NATIONAL AGING RESOURCE CENTER - HEALTH PROMOTION AND WELLNESS;
Health Promotion/Health Education

AARP will establish a National Resource Center on Health Promotion and Wellness to increase the awareness of the importance of health promotion for older adults, increase the availability and quality of programs, and enhance the ability of State Agencies on Aging and other organizations to organize and implement effective health promotion programs. The Center will serve as health promotion information center that provides training and technical assistance to State Agencies on Aging and State Coalitions on Health Promotion. It will facilitate the sharing of creative program ideas and promote effective program evaluation. The Center will develop a Health Promotion Library which will be a resource for those deveoping programs. The Center will conduct workshops and teleconferences on priority topics and will develop a videotape about outreach strategies on health promotion for minorities and low-income groups.

NATIONAL AGING RESOURCE CENTER - ELDER ABUSE
Center

90AM0332
American Public Welfare Association
810 First Street, N.E.
Washington, DC 20002
National Aging Resource Center on Elder Abuse
Toshio Tatara, Ph.D.
(202) 682-0100
09/30/88 - 09/30/91 AoA : $ 0 $ 199,999 $ 399,998
NATIONAL AGING RESOURCE CENTER - ELDER ABUSE;
Elder Abuse

The National Aging Resource Center on Elder Abuse serves as a national resource in elder abuse prevention and services to States, communities, educational institutions, professionals in the field, and the public. The Center has 4 functions: technical assistance, training, dissemination, and short term research. The causes of elder abuse will be analyzed and various methods of identifying, investigating, preventing, and combating elder abuse and neglect will be developed by the Center into an information repository. The information repository will be used by the Center as the basis for consultation, technical assistance, and training, with special emphasis on State Agencies on Aging and their Area Agencies on Aging.

ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT	FUNDING FY 1987	FY 1988	FY 1989

NATIONAL AGING RESOURCE CENTER - LTC OMBUDSMAN PROGRAM
Center

90AT0401
National Association of State Units on Aging
2033 K Street, N.W.
Suite 304
Washington, DC 20006
Center for State Long Term Care Ombudsman Resources
Ann Lordeman
(202) 785-0707
09/30/88 - 09/30/91 AoA : $ 0 $ 387,488 $ 500,000
NATIONAL AGING RESOURCE CENTER - LTC OMBUDSMAN PROGRAM;
Institutional Long Term Care;
Protective Services

This Center is established in collaboration with the National Citizens Coalition for Nursing Home Reform to provide nation-wide technical assistance, training, and information on ombudsman-related issues to State Agencies on Aging and their ombudsman programs. The Center's mission is to: (1) assist States in developing and managing effective Statewide programs; (2) expand the capacity of State Agencies on Aging to make informed contributions toward the shaping of State policies related to community and institution-based long term care; (3) facilitate more effective communication between the State ombudsmen and other members of the comprehensive service system serving older persons; (4) serve as a resource to State Agencies on Aging and others regarding the factors which affect the quality institutional care of the elderly; (5) examine the effectiveness of the ombudsman programs on resolving problems affecting residents of board and care facilities; and (6) examine the effectiveness of the ombudsman program in establishing and managing volunteer components.

NATIONAL AGING RESOURCE CENTER - SPECIAL POPULATIONS
Center

90AM0339
San Diego State University Foundation
University Center on Aging
San Diego State University
San Diego, CA 92182-1900
National Resource Center on Minority Aging Populations
E Percil Stanford, Ph.D.
(619) 594-2810
09/30/88 - 09/29/91 AoA : $ 0 $ 199,985 $ 400,000
NATIONAL AGING RESOURCE CENTER - SPECIAL POPULATIONS

The National Resource Center on Minority Aging Populations will: (1) provide technical assistance to policymakers; (2) initiate a support network responsive to the needs of minority elderly; (3) provide a computerized resource system containing a synthesis of information and materials on minority aging; (4) analyze policies and services to promote services to minority elderly; and (5) examine trends of future minority cohorts. Products include training manuals, 'best practice' reports and other reports and materials.

NATIONAL AGING RESOURCE CENTER - SPECIAL POPULATIONS
Center

90AM0349
University of Missouri-Kansas City
Office of Research Administration
Kansas City, MO 64110
National Resource Center for Rural Elderly
David Howard
(816) 276-1024
09/30/88 - 09/30/91 AoA : $ 0 $ 199,983 $ 299,994
NATIONAL AGING RESOURCE CENTER - SPECIAL POPULATIONS;
Community-based Care Systems Development/Improving Linkages

The National Resource Center for Rural Elderly serves as a national focal point for states, communities, educational institutions, professionals in the field, and the public by providing technical assistance, training, and dissemination; and also conducting short term research efforts. The Center supports State Agencies on Aging in the continuing development of community-based systems serving the rural elderly by identifying and disseminating best practice programs and services in the following three primary focus areas: access/transportation, health/care coordination, and housing/assisted living alternatives

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ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT — FUNDING: FY 1987 | FY 1988 | FY 1989

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Demonstration

90AM0370
Oregon State Department of Human Resources
Senior Services Division
313 Public Service Building
Salem, OR 97310
Who Will Care? A Model Collaborative Project
Richard Ladd
(503) 378-3751
08/01/89 - 07/31/91 AoA : $ 0 $ 0 $ 177,018
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Continuing Education and Training for Professionals and/or Paraprofessionals

This project seeks to address the impending crisis of a shortage of long-term care workers by collaborating with local communities and area agencies on aging in developing a model program. This model will develop strategies for recruiting workers, standardize training, increase esteem with a public education campaign, and develop an employment guide. Additionally, there will be a Job Fair and Career Days to educate potential workers. Technical assistance and funding will be provided to AAA's to develop or expand services. Lastly, the project proposes to develop retention strategies to reduce turnover, including recommending wage and benefit levels. Product include a booklet, PSA's/Documentary, Fair materials, and an employment guide.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Other - SURVEY

90AR0125
Association for Gerontology in Higher Education
600 Maryland Avenue, S.W.
West Wing 204
Washington, DC 20024
Determining the Impact of Gerontology Preparation on Personnel in the Aging Network: A National Survey
Elizabeth Douglass
(202) 484-7505
10/01/89 - 02/28/91 AoA : $ 0 $ 0 $ 149,999
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Manpower Studies

The purpose of this project is to determine the extent to which current professionals in the aging network are academically prepared for the effective and efficient provision of services to older persons and to determine the career paths they have followed. This data will include their characteristics and their perceptions of the field. This project will be one of a coordinated series of studies designed to increase the quality of personnel who are entering the field of service to the aging.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

02AD0003
Inter American University of Puerto Rico
Metropolitan Campus
G.P.O. Box 3255
San Juan, PR 00936
Post-Baccalaureate Certificate Training & Development Program for Minority Social Workers
Vidal Velez, Ph.D.
(809) 758-0899
09/30/88 - 02/28/90 AoA : $ 0 $ 102,309 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Continuing Education and Training for Professionals and/or Paraprofessionals;
Development of Academic Institutions/Faculty/Curricula

This project will develop a permanent post-baccalaureate gerontology training program for social workers designed to upgrade services to the low-income Hispanic elderly. Courses will be developed, each focusing on an area of knowledge, need and skills that cannot be acquired at the Bachelor's level. Training materials will include supplementary written and audiovisual aides. Expected outcomes include eight courses, supplementary materials and a mass media feature for public education.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

03AT0452
New York University SEHNAP
Dept of Occupational Therapy
34 Stuyvesant Street, Rm 101
New York, NY 10003
Occupational Therapy and the Elderly
Estelle Breines, Ph.D.
(212) 998-5828
09/30/88 - 02/28/90 AoA : $ 0 $ 125,000 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Continuing Education and Training for Professionals and/or Paraprofessionals

This project will train occupational therapy students to work with the elderly by developing clinical training sites for students at geriatric centers, introducing a new course in occupational therapy for the elderly and preparing training materials for entry-level students. Specialized content on the aged will be developed and added to the occupational therapy curriculum. Students will evaluate and treat patients, evaluate the effectiveness of therapy, conduct research, and visit the elderly in their homes, community centers and hospitals. Products include a curriculum outline and a final report.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

03AT0259
Pennsylvania College of Optometry
1200 West Godfrey Avenue
Philadelphia, PA 19141
Curriculum Development in Aging for Low Vision Rehabilitation Specialist Program
Audrey Smith, M.ED.
(215) 276-6290
09/30/88 - 02/28/90 AoA : $ 0 $ 122,353 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Continuing Education and Training for Professionals and/or Paraprofessionals;
Development of Academic Institutions/Faculty/Curricula

This project will develop, implement and evaluate a gerontological curriculum for use in its master of science program in vision rehabilitation. Instructional methods, audiovisual aids, and evaluation criteria will be developed in modules easily transferrable to other programs of higher education. The proposed curriculum will impact on the professional development of students and graduates, as well as on the lives of the visually impaired elderly individuals they serve. Expected outcomes include: acquired knowledge and skills in vision changes, problems with normal aging and eye diseases in the elderly; a gerontology curriculum with videotapes.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

04AM0346
Jackson State University
P.O. Box 17041
Jackson, MS 39217
Aging Content in Professional Social Work Academic Training
James Brooks, D.S.W.
(501) 968-2631
09/30/88 - 05/31/90 AoA : $ 0 $ 115,407 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS

The project will develop and implement a certification program in gerontology training for social work students. The goal is to include aging content into the curriculum of the social work program, to increase the number of trained professional social workers in the aging arenas. The objectives are to: train students in the certificate program in gerontology; develop the social work student's capacity for direct practice with the elderly, their families and the social agencies with whom they interact; and assist social work students in securing employment in the field of aging. The training approach includes 18 semester hours of classroom training in gerontology and a 500-hour field practicum in a social agency serving the elderly. The outcomes will be: first level generalist social workers with specializations in gerontology training; greater linkages between social agencies; and employment opportunities in aging for persons with certificates in gerontology training. This knowledge also will be shared with other students, faculty and the community through a public forum.

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CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

05AM7335
Western Michigan University
College of Health & Human Services
Kalamazoo, MI 49008
Gerontology and Drug and Alcohol Abuse/Misuse: Training for Specialists
Ellen Page Robin, Ph.D.
(616) 387-2647
09/30/88 - 02/02/90 AoA : $ 0 $ 146,922 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Other

This project is to improve and increase meaningful services to older persons who abuse or misuse alcohol and/or drugs, recreational and medicinal. Objectives are to augment the graduate level Specialty Program on Alcohol and Drug Abuse and the Gerontology Program with: (1) a jointly taught elective course about aging and substance abuse; (2) development of required core course in each of the above curricula; (3) development of speciality in aging substance abuse; and (4) incorporating this subject matter in continuing education course offered at a number of sites. The products, which include a syllabi, bibliographies, audio-visual materials and model curriculum, will be widely disseminated to professional groups and academic systems in both the alcohol and drug abuse programs and gerontology programs.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

05AM7865
Indiana University Foundation
Health, Physical Education & Recreation
P.O. Box 1847
Bloomington, IN 47402
Therapeutic Gerontology Recreation Specialisation
Barbara Hawkins, Ph.D.
(812) 335-6508
09/30/88 - 06/30/90 AoA : $ 0 $ 148,050 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Continuing Education and Training for Professionals and/or Paraprofessionals

This project is to develop, implement, evaluate and disseminate model curricula for preservice and inservice education in therapeutic recreation for allied health professionals who provide in-home and community-based geriatric care services for the frail elderly. Specialized coursework and videotaped courses will be developed to serve as model curricula for gerontological therapeutic recreation professional preparation and continuing education programs. A final analytical report on standards of care, skill competencies, credentialling practices and standards, and regulatory concerns in the provision of in-home health care to frail elderly clients will be disseminated on a state, regional and national basis. State-of-the-art professional presentations and journal publications are also products of the project.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

06AM0416
Baylor College of Medicine
Center for Allied Health Professions
One Baylor Plaza
Houston, TX 77030
Statewide Project to Include Aging Content in Schools of Pharmacy
Robert Roush
(713) 799-4312
09/01/88 - 01/31/90 AoA : $ 0 $ 149,999 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Development of Academic Institutions/Faculty/Curricula:
Health Promotion/Health Education

The objectives of this statewide project are to: (1) identify knowledge and skills essential to pharmacist's role in geriatric care; (2) analyze existing materials in pharmacy schools throughout the state; (3) develop a course in geriatrics appropriate to each school; (4) prepare pharmacy faculty members to teach geriatric content; (5) implement student instruction in geriatrics; (6) evaluate impact of course on students' ability to serve frail, poor and minority elderly; and (7) disseminate results of the curriculum adaptation process to all U.S. Schools of Pharmacy. The project will develop a model didactic curriculum module to introduce age-specific pharmacotherapeutics to Schools of Pharmacy. Evaluation of course impact will be made after course is taught for two semesters to 120 pharmacy students.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

06AM0417
North Texas State University
Center for Studies In Aging
P.O. Box 13438, NT Station
Denton, TX 76203-3438
Inclusions of Aging Content in Rehabilitation Training Program
Thomas Fairchild, Ph.D.
(817) 565-2765
09/01/88 - 01/31/90 AoA : $ 0 $ 81,815 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Continuing Education and Training for Professionals and/or Paraprofessionals

This project will integrate key gerontological content into the core curriculum of graduate students preparing for certification as rehabilitation counselors. In addition, the project will provide a continuing education program in gerontology and counseling disabled elderly persons for those who are practicing rehabilitation counselors. The project staff will: (1) offer gerontological training to graduate students by adapting existing materials for use in the core courses offered by the center; (2) train rehabilitation faculty in key gerontological content; (3) recruit seven students; (4) develop and conduct continuing education programs; (5) present a workshop on curriculum modification for faculty of the twelve rehabilitation counselor programs in AoA Region VI; and (6) develop a training manual for academic programs as an aid in integrating key aging content into existing curricula.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

10AT0024
Oregon State University
College of Home Economics
Corvallis, OR 97331-5102
Gerontology in Home Economics Professional Education
Clara C. Pratt, Ph.D.
(503) 754-4765
09/30/88 - 02/28/90 AoA : $ 0 $ 102,145 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS

Oregon State University's College of Home Economics will revise its undergraduate curriculum to permanently increase the gerontology content required of all students particularly those in nutrition, dietetics, housing, apparel design, and family studies. Ten required courses are targetted for increased gerontology content. However, content has actually been increased in fourteen courses. Two new coures on dietetics and support systems for the elderly will be developed as a grant requirement but a third course, Women and Aging, has been added. A minimum of 15 students annually will take part in expanded field study in gerontology, and earn certificates in gerontology. All field activities will be developed with the input of the Oregon Senior Services Division and local aging services agencies. Approximately 500 students will participate during the 17-month grant period; over 350 will participate each year thereafter. All course and field study materials will be disseminated, and consultation with the nation's 341 baccalaureate level home economics programs will facilitate use of the curriculum at other institutions.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

10AT0025
Idaho State University
College of Pharmacy 8333
Pocatello, ID 83209-0009
Certificate Program in Geriatric Pharmacy for Practicing Pharmacists & Pharmacy Students
Barbara Adamcik, Ph.D.
(208) 236-2309
09/30/88 - 02/28/90 AoA : $ 0 $ 142,608 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Continuing Education and Training for Professionals and/or Paraprofessionals:
Development of Academic Institutions/Faculty/Curricula

This project will develop and implement an innovative Certificate Program in Geriatric Pharmacy Practice for pharmacists and pharmacy students. The program focuses on development of the therapeutic, clinical, administrative and counseling skills, and knowledge necessary to prepare pharmacists to meet the special health care needs of their elderly patients. Several issues which are of special concern in geriatric pharmacy will be addressed in this program. The include: multiple diseases and polypharmacy; pharmacodynamic and parmacokinetic changes; altered presentation of illiness, patient compliance and adverse effection of drugs.

Utilising surveys, live programs, didactic self-study modules, interactive, computerized case studies and examinations, satellite teleconferencing and faculty-supervised clerkships, this project will prepare pharmacists to meet the drug-related needs of the elderly. The impact of the program will be evaluated by assessing the improvement in pharmacists' knowledge and services. Expected outcomes are: (1) measurable improvement in attitudes, knowledge and skills of pharmacists/students; (2) improved drug-related services; and (3) lowered health-related costs. Specific products resulting from this project include: (1) publications and presentations at national meetings; (2) interactive computerized case materials; (3) syllabi for courses and clerkship; (4) a Program Operations Manual; and (5) an evaluation report.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0362
Association for Gerontology in Higher Education
600 Maryland Avenue, S.W., West Wing 204
Washington, DC 20024
Improvement of Instructional Content in Aging-Related Knowledge and Skills for Gerontology, Nursing and Social Work
Elizabeth B. Douglass
(202) 484-7505
09/01/88 - 06/30/90 AoA : $ 0 $ 149,824 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS

This project is designed to respond to the demand from college/university faculty and administrators for guidance in the development of new programs and the enhancement of existing ones. Project goals are to: (1) improve the quality of education and training programs which prepare professionals to work in the field of aging; (2) develop model processes for the incorporation of curricular and programmatic standards for gerontology education into the accreditation, licensure, certification, and degree programs of selected professions; and (3) improve the quality of care and services to older persons. AGHE will work in partnership with four national nursing and social work associations. Products will be: criteria for gerontological education programs; a report of the status of nursing & social work certification, licensure, registration and accreditation requirements and standards of evaluation; several models for carrying out the objectives; and a series of recommended organizational membership services.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0364
American Physical Therapy Association
1111 N. Fairfax Street
Alexandria, VA 22314
Enhancement of the Aging-Related Content and Learning Experiences in Physical Therapy Curriculum Programs
Virginia M. Nieland
(703) 684-2782
09/01/88 - 01/31/90 AoA : $ 0 $ 149,950 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Development of Academic Institutions/Faculty/Curricula

The project is promoting preparation for an aging society by describing aging-related content/experience for students in physical therapy programs, identifying exceptional models for education and training in accredited programs, and training reader/consultants and on-site evaluators in methods of consultation to enhance program offerings in gerontology and geriatrics. A board of advisors from related fields of interest is analyzing data collected from accredited programs and is compiling four geriatric education models, designing and implementing training for consultants in accreditation recommending changes in accreditation standards and practices, and preparing results for national dissemination. Expected outcomes include revision of the standards for accreditation of physical therapist assistant programs, improvement of gerontological competencies of PT/PTA graduates, an increase in consultant educators, and new models for aging-related education.

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PROJECT — **FUNDING**
FY 1987 — FY 1988 — FY 1989

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0389
American Association for Counseling and Development
5999 Stevenson Avenue
Alexandria, VA 22304
Assessment and Evaluation of Gerontological Counselor Knowledge and Skills
Jane Myers, Ph.D.
(703) 823-9800
09/30/88 - 02/28/90 AoA : $ 0 $ 150,335 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS

The project will research knowledge and skills about gerontology necessary for all counselors and human development specialists who complete generic counselor training as well as those counselors who specialize in work with older persons and establish a nationally accepted statement of minimum knowledge and skill requirements in gerontological counseling. Through questionnaires, interviews and a national advisory committee, the project will assess and report minimum knowledge and skills and methods of their evaluation for National Certified Counselors and establish minimum knowledge and skills for all counselor education graduates. It will explore the feasibility of establishing minimum knowledge and skills for National Certified Gerontological Counselors including development of items for a national certification examination.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0395
North Carolina Central University
Public Administration Program
P.O. Box 19552
Durham, NC 27707
Specialized Academic Training for Students: Multipurpose Senior Center Administrators
Clarence Brown, Ph.D.
(919) 560-6240
10/01/88 - 02/28/90 AoA : $ 0 $ 126,921 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Placement/Traineeship Programs

This project will provide specialized gerontological training for advanced undergraduate and graduate students interested in careers as administrators of multipurpose senior centers. Gerontology content designed to develop skills required to operate a senior center will be infused into the existing multidisciplinary gerontology curriculum. The training program will provide students with internship opportunities in senior centers and assistance with permanent employment after graduation. State and Area Agencies on Aging will collaborate extensively in the planning, training, and employment activities of the project.

CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0398
Gallaudet University
800 Florida Avenue, N.E.
Washington, DC 20002
A Curriculum for a Specialization in Gerontology and Hearing Impairment for a MSW at Gallaudet University
Catherine Moses, MSW
(202) 651-5160
09/30/88 - 02/28/90 AoA : $ 0 $ 100,965 $ 0
CAREER PREPARATION FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Development of Academic Institutions/Faculty/Curricula

The project will develop a curriculum in aging and hearing impairment to train graduate level social workers to work effectively with hearing impaired older persons. Objectives are: (1) identify foundation content; (2) develop a course in research; (3) develop a course in social policy and community planning for the hearing impaired elderly; (4) develop a course on issues in gerontological practice with hearing impaired elderly; (5) develop a measure to assess student outcomes; (6) develop six field placement sites; and (7) establish a beginning data base for a national network of agencies. Through these courses and field placements, the project will produce a cadre of social workers who can provide direct services, participate in community planning, and conduct research for the benefit of elderly persons who are hearing impaired.

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FY 1987 FY 1988 FY 1989

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

02AT0451
State University of New York at Buffalo (SUNY)
Multidisciplinary Center for the Study of Aging
Diefendorf Annex
Buffalo, NY 14214
Statewide Training for Managers of Federally Subsidized, Low-Income Housing for the Elderly.
Gary Price
(716) 831-3834
09/30/88 - 02/28/90 AoA : $ 0 $ 149,619 $ 0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Housing/Living Arrangements;
Community-based Care Systems Development/Improving Linkages

This project will develop and implement a short term in-service training program for managers of Federally subsidized housing as a means of impacting on the unmet service needs of low-income elderly tenants. The model training curriculum which will be pilot tested and with monitoring by representatives of the New York State Office on Aging, U.S. Department of Housing and Urban Development Region II Office, and the Buffalo Chapter of the National Caucus Center on Black Aged, Inc. A manual will be developed for planners and trainers. Approximately 750-1000 housing managers will receive training in a one-day workshop at 25 sites throughout New York State. Downstate training will be conducted by Hunter College. Followup and support activities which reinforce training goals will be conducted and integrated into housing manager personnel management policies, where feasible.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

05AM7051
Illinois Department on Aging
Older American Services
421 East Capitol
Springfield, IL 62701
Attitudinal Barriers to Rehabilitation of Older Individuals - Training Project for Nurses
Michael Stehlin
(217) 785-8683
09/30/88 - 02/28/90 AoA : $ 0 $ 128,537 $ 0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Health Care/Services - Physical

This project will develop a gero-rehabilitation training program for health care workers in home health agencies and nursing homes. Training topics will include understanding and coping with learned helplessness behavior, depression, and motivation for self-care, cognitive impairment, and functional status assessment. Rush University will develop and test workshops at 10 sites, a train-the-trainer clinical course, 2 statewide nursing symposia, and curriculum modules with videotapes and printed materials. About 400 persons will receive training.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

05AM7413
Operation ABLE
36 South Wabash Avenue
Chicago, IL 60603
Operation ABLE and the Development of Aging Older Worker Training Program
Shirley Sachs
(312) 782-3335
09/30/88 - 02/28/90 AoA : $ 0 $ 148,761 $ 0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Employment/Income Security

This project will develop and implement a training and technical assistance program for volunteers and paid older worker specialists employed by the State of Illinois and local non-profit organizations supported by the Federal Joint Training Partnership Act's 3% Older Workers Program, The Older Americans Act Title V Community Service Employment Program, and The Department of Labor's Employment Security Job Service Program. A two-day training workshop curriculum will be developed, including a training package with curriculum materials and a trainer's manual, and administered at two sites to 200 older worker specialists. Four one-day follow-up meetings held at five-month intervals will be held to reinforce training. A newsletter, peer skills exchange system and 800-number hotline will be supported. They later will be used for both technical assistance and a base for an integrated statewide job referral system.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

05AM9045
Wayne State University
Department of Sociology
1064 Mackenzie Hall
Detroit, MI 48202
Statewide Short-term Training and Continuing Education on Elder Abuse for Physicians
Mary Sengstock, Ph D.
(313) 577-2930
09/30/88 - 02/02/90 AoA : $ 0 $ 132,476 $ 0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Health Care/Services - Physical:
Elder Abuse

This project will develop and pilot test a one-day training workshop on detection and reporting of older adult abuse for physicians. Training will be offered at four sites throughout the state of Michigan reaching an estimated 240 practicing physicians. Topics will include didactic and clinical disussion of identification of elder abuse, neglect and maltreatment, validation of symptoms, treatment, and reporting requirements. Six case studies will be documented and simulated using videotape workshop material and arrangements for the workshop will include the collaboration of the Michigan State Medical Society, the school of medicine at Michigan State University, and consultants from St. Laurence Hospital in Maryvette.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

06AM01214
Grambling State University
Department of Social Work
Box 907
Grambling, LA 71245
State-wide Short-term Training and Continuing Education for Black Ministers in Louisiana
W.T. Samuel, Ph.D.
(318) 274-2369
09/01/88 - 01/31/90 AoA : $ 0 $ 106,398 $ 0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Other:
Community-based Care Systems Development/Improving Linkages

This project will develop and implement a one-day training workshop for black ministers to encourage church-centered programs for older members and increase dissemination of information on Aging Network community and in-home programs to caregivers of the elderly. An advisory group including representation of three major black church organizations in Louisiana will consider endorsement of church programs developed in other areas of the country and assist in arrangements for six state regional workshops for 200 black ministers. A training package developed by System Planning Associates of New Hampshire will be adapted. An information package identifying community and in-home programs will be compiled for workshop participants.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

06AM0413
Texas Agricultural Extension Service
Family Sciences, Texas Agricultural Ext.
Texas A and L University
College Station, TX 77843
Training County Extension Agents to Implement Minority Peer Education Programs in Congregate Meal Sites
Judith Warren, Ph.D.
(409) 845-1150
09/30/88 - 02/28/90 AoA : $ 0 $ 136,242 $ 0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Nutrition:
Use of the Elderly as Resources

This project will develop and pilot test a nutrition education program delivered by peer educators at congregate meal sites serving low income elderly. Trainer teams led by county extension agents in 14 state regional centers will train volunteer peer educators at sites selected with the assistance of area agencies on aging, congregate meal contractors, and site managers. Peer training will use video tape vignettes featuring community theatre Black and Spanish speaking actors. The ultimate goal of the program is to change the attitudes and behavior of minority, low-income older persons regarding food selection, meal preparation, and eating habits. The video and print materials developed by the grantee will also be pilot tested by The National Center of Extension Gerontology, University of Missouri.

PROJECT — FUNDING FY 1987 — FY 1988 — FY 1989

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

07AT0356
University of Iowa
College of Dentistry
Department of Prevention and Community Dentistry, Dental Science B
Iowa City, IA 52242
Geriatric Continuing Education of Iowa Dentists Via a Live Interactive Teleconference
Hermine McLeran
(319) 335-3822
09/01/88 - 02/28/90 AoA : $ 0 $ 145,773 $ 0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Health Promotion - Dental;
Development of Academic Institutions/Faculty/Curricula

The University of Iowa will collaborate with the Iowa Dental Association to develop and present a satellite teleconference on geriatric dentistry in each of the 10 districts of the State Dental Association. The project will: train faculty to present the teleconference; and conduct a workshop for district facilitators to provide intensive training on geriatric dentistry and in-service training for nursing homes and community agencies. The project will produce a motivational videotape, guidelines for a teleconferenced program, a workbook, slides, charts and other instructional materials, which will be made available to other State Dental Associations, dental schools and health professional organizations.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

08AT0060
University of North Dakota
Consortium on Gerontology
501 North Columbia Road
Grand Forks, ND 58201
Training of Support Services Staff to Assist Diabetic Clients in Disease Management
Marlys Brattell
(701) 777-3[illegible]66
09/30/88 - 02/28/90 AoA : $ 0 $ 125,649 $ 0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Health Promotion/Health Education;
Nutrition

This project will develop a short-term in-service training program for homemakers/home health aides and tribal community health representatives employed by the State Department of Human Services and Indian Health Service to enable them to educate and support older diabetic clients to manage their disease. A six-hour workshop consisting of five modules covering basic knowledge of diabetes mellitus, nutrition, exercise, blood monitoring, and physical complications, will be developed and tested in two locations. A series of 20 workshops will be offered throughout the state and on each of the four tribal reservations, 400 aides and representatives. Development and dissemenation of the training modules will be facilitated by an advisory board that includes representation by the Title VI Older American Program Tribal Directors.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

09AT0088
Stanford University
Stanford Geriatric Education Center
703 Welch Road, Suite H-1
Stanford, CA 94305
Geriatric Continuing Education for California Physician Assistants
William Fowles
(415) 725-4489
09/30/88 - 02/28/90 AoA : $ 0 $ 149,456 $ 0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS:
Health Care/Services - Physical

This project will develop a continuing education program for practicing physician assistants. The pilot program will provide 45 trainees with one week of didactic training at the Stanford Geriatric Education Center using curricula adapted from pre-service coursework. Trainees will then participate in clinical training with a geriatric physician practitioner. The schedule for classroom and clinical instruction will be reviewed by the California Academy of Physician Assistants. Continuing education hour credits leading to bi-annual recertification requirements will be solicited from the American Academy of Physician Assistants. Clinical training with preceptors will be modeled on the Model Geriatric Clerkship for Physician Assistant students funded by the Health Resources and Services Administration.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

09AT0089
University of Arizona
Long Term Care Gerontology Center
1807 E. Elm
Tucson, AZ 85719
Training Nurse/Home Health Aides to Work with Alzheimer's Disease Patients
Theodore Koff, Ed.D.
(602) 626-485
09/30/88 - 02/28/90 AoA : $ ____0 $ 150,000 $ ____0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Alzheimer's Disease;
Health Care/Services - Physical

This project will develop and implement a 16-hour workshop training program for nurse aides working in long term care facilities in Arizona on the care of Alzheimer's Disease patients. The curriculums will cover normal aspects of aging, the causes and symptoms of Alzheimer's patients, their evaluation and assessment by nurses, the social implications of Alzheimer's disease, behavior management, communications, adaptive activities and safety. Materials to be developed include a trainer's guide, student workbooks and instructional videotapes. Thirty trainers will be given instruction on conducting the training workshop and will observe aide training in 10 workshops held throughout the state. An estimated 500 aides will be training under the grant. An effort will be made to incorporate the training program into the 75-hour training requirement needed under Medicine/medical regulations.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

10AT0026
Oregon Department of Human Resources
Senior Services Division
313 Public Service Building
Salem, OR 97310
Statewide Training and Continuing Education for Adult Foster Care
Connie Baldwin
(503) 378-4728
09/30/88 - 02/28/90 AoA : $ ____0 $ 118,155 $ ____0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Housing/Living Arrangements

This project will develop and implement training of adult foster care home owners and managers throughout the state of Oregon. Three training modules will be developed. The first module will be used in an all-day training program for prospective providers including a media presentation, use of an educational game, and a provider's manual. The second module will be used in the day workshops (18 hours) to provide oriented training for new and current providers. Topics will include mental health and medical problems, communication skills, coping with behavior, working with families, personal care, use of community resources, and meeting state regulations and requirements. The third module will be used to give two-day training for trainers prior to their observation of module one and two training. An estimated 1,500 foster care home personnel will receive training during the project. Since the implementation of this project, the Oregon Legislature passed a statute requiring 18 hours of training for Adult Foster Care personnel. This program serves as a model that can be used by other states.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0363
Gerontological Society of America
1275 K Street, N.W. Suite 350
Washington, DC 20005
Fellowship Program in Applied Gerontology
Lori Simon-Rusinowitz, Ph.D.
(202) 842-1275
09/30/88 - 12/31/89 AoA : $ ____0 $ 149,215 $ ____0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Placement/Traineeship Programs

The Fellowship Program in Applied Gerontology is a unique educational training program which: (1) trains key personnel in agencies serving older persons in solving a particular problem; (2) educates postdoctoral researchers about practical problems of practitioners; and (3) produces a concrete, useable product for 'host' agencies. The program matches experienced researchers with agencies serving the elderly to conduct specifically defined projects for three summer months. Program outcomes include: more agency personnel with problem-solving abilities; on-going transfer of new technology from researchers to practitioners; and more gerontology educators with applied teaching material. Benefits to the elderly include: improved service delivery and targeting of services to clients in greatest need; improved efficiency to use scarce resources wisely; and programs rooted in the latest research techniques. Products include program evaluations, planning documents, and training materials. Project results are used immediately by host agencies, and they are disseminated through fellow, agency, and GSA publications, presentations, and media activities.

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ACTIVE GRANTS
Under Title IV of the Older Americans Act
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PROJECT   FUNDING
FY 1987   FY 1988   FY 1989

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0390
Three Feathers Associates
P.O. Box 5508
Norman, OK 73070
Title VI Directors - Training and Recognition Program
Antonia Dobrec
(405) 360-2919
09/30/88 - 09/29/91   AoA : $ 0 $ 200,000 $ 200,000
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS

The purpose of this three-year project, comprising three institutions, is to increase the program management competencies of Title VI directors and to provide recognition of the directors within the aging network. A second 10-day Institute will be conducted for 28 directors and follow-up teletraining will be provided for on-going assistance, guidance, and support. A Title VI Execs Society will be established for directors who graduate from the Institute. Products include: an Institute manual and curriculum; teletraining materials; and bibliography of literature addressing older Indians and Alaskan natives. Expected outcomes are: improved program operations, cost effective approaches for expanding services, lower attition rate of directors and recognition of Title VI within the aging network.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0391
North Carolina Department of Human Resources
Division of Aging
1985 Umstead Drive
Raleigh, NC 27603
Geriatric Education for Hospital Discharge Planners
Marion Sigmon
(919) 733-3983
09/30/88 - 04/30/90   AoA : $ 0 $ 10,000 $ 0
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Community-based Care Systems Development/Improving Linkages;
Health Care/Services - Physical

This project will integrate information describing the supportive services of the aging network into existing curricula used to train hospital discharge planners in North Carolina. Four 24-hour training workshops will be held throughout the state using the revised curriculum reaching 300 nurse and social work discharge planners. Staff at the Geriatrics Education Center, University of North Carolina, will revise existing training modules for integration with material prepared by the Division of Aging. Representatives of the North Carolina Association for Continuity of Care and North Carolina Chapter of the Society of Social Work Directors will serve as members of the advisory board. The training module will be disseminated to AoA regional offices, State Units on Aging, State Departments of Health, and national professional organizations.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0407
Old Dominion University
College of Health Sciences
P.O. Box 6369
Norfolk, VA 23508-0369
Oral Health for the Institutionalized Elderly
Shirley Glover
(804) 683-4256
10/01/88 - 12/31/89   AoA : $ 0 $ 24,999 $ 4,517
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Health Promotion - Dental;
Institutional Long Term Care

This project is training nursing home in-service coordinators to teach oral disease identification and disease control techniques to nurses aides through a statewide network of resource personnel trained in the delivery of oral health in-service training programs. The project will train 5 dental hygienists to serve as trainers at 5 sites around the state. Twenty (20) coordinators will participate in the training at each site. And will, in turn, train at least 15 nurses aides in their own facilities. The instructional packet for nursing home nurse educators, including a videotape, manual and demonstration materials will be available for dissemination at the conclusion of the project.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0418
Drexel University
Department of Psychology, Sociology and Social Sciences
32nd and Chestnut Streets
Philadelphia, PA 19104
The Older Client: Applied Gerontological Education and Training for State and County Probation and Parole Agents
Julia Hall, Ph.D.
(215) 849-6309
09/30/89 - 02/28/91 AoA : $ 0 $ 0 $ 76,765
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Other

This project will develop, conduct, evaluate, and disseminate a training program and materials for State and county probation and parole agents to improve their capacity to counsel, advise and assist adjustment of elderly ex-offenders released from correctional facilities. Training seminars will be held with the assistance of the Pennsylvania Bureau of Probation and Parole and will include fundamentals of physical, psychological and social functioning of older adults as conditioned by the prison environment; techniques to facilitate communication; and information on community aging resources. Products will include a videotape, participant manual, and instructor guide.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0419
Gerontological Society of America
1275 K Street, N.W.
Washington, DC 20005
Fellowship Program to Applied Gerontology
John M. Cornman
(202) 842-1275
09/30/89 - 09/30/90 AoA : $ 0 $ 0 $ 50,000
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Placement/Traineeship Programs

This project matches experienced researchers with agencies and organizations serving older persons to conduct agency-initiated projects for three summer months. The project will support 5 post-doctoral fellows of the Fellowship Program in Applied Gerontology. This will be matched to agencies that submit proposals for summer applied research projects which address operational or planning needs. Representatives of selected host agencies and the post-doctoral fellows will meet in a planning conference sponsored by this grant to refine project protocols. Agency sponsors are responsible for on-site support of fellows during their three month placement. Project results are disseminated through conferences and publications of the grantee organization.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0420
American Speech-Language-Hearing Association
10801 Rockville Pike
Rockville, MD 20852
Older Voices: An In-Service Training Program on the Communication Needs of Older Persons
James P. Gelatt, Ph.D.
(301) 897-5700
09/30/89 - 02/28/91 AoA : $ 0 $ 0 $ 99,276
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Health Care/Services - Physical;
Institutional Long Term Care

This project will develop, field test, and disseminate an in-service training program for para-professional staff of residential care facilities on the communication disorders and communication needs of older persons. The grantee will collaborate with the American Association of Homes for the Aging, the American Health Care Association, and the American College of Health Care Administrators in development of a training program and training materials. Four training packages will be developed, each will include a trainer's guide, a resource guide, and a 15-minute videotape. The training package will be pilot tested with 10 para-professionals at four different sites prior to telecast to a national audience of 400 residential care facility administrators and speech-language pathologists.

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PROJECT	FUNDING FY 1987	FY 1988	FY 1989

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0423
North Carolina Department of Human Resources
North Carolina Division of Aging
1985 Umstead Drive
Raleigh, NC 27603
Implementing a Dementia Curriculum for Paraprofessionals
Marion Sigmon , MPH
(919) 733-3983
10/01/89 - 02/28/91 AoA : $ 0 $ 0 $ 12,920
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Alzheimer's Disease

A curriculum for training paraprofessionals in understanding dementia and managing behaviors resulting from dementia of residents in a long-term care facility has been prepared by a North Carolina state committee. This project will adapt the curriculum to include in-home and adult day-care health settings as well as long-term care institutions, and will implement the training across the state through 4 training sessions for in-service trainers.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0425
University of Connecticut
Travelers Centers on Aging
348 Mansfield Road, U-58
Storrs, CT 06269
Continuing Education for Professionals Working with Elderly Renters
Nancy W. Sheehan , Ph.D.
(203) 486-4043
09/30/89 - 12/30/90 AoA : $ 0 $ 0 $ 94,739
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Housing/Living Arrangements

This project will provide short-term educational training to housing developers, residential managers and social service professionals to understand the common problems experienced by frail vulnerable renters as they "age in place." A model curriculum will be developed for a series of four half-day workshops tested with 200 participants. Participants will be encouraged to continue their interactions through formation of local networks under the umbrella of a regional task force consisting of community leaders from public and private housing sectors and community service agencies. Information pamphlets supplementing ones prepared by the University of Wisconsin will be developed and disseminated on such topics as discharging frail tenants, legal issues, and sensory changes and the physical environment.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0426
Puerto Rico Governor's Office of Elderly Affairs
Box 50063
San Juan, PR 00902
Short Term Training for Elder Abuse Prevention in Puerto Rico
Luisa L. Trinidad , Ph.D.
(809) 721-0642
09/30/89 - 02/28/91 AoA : $ 0 $ 0 $ 100,000
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Elder Abuse:
Institutional Long Term Care

Project goals are to: (1) sensitize State and private sector elder services staff and administrators regarding legal and protective services needs and rights of Puerto Rican citizens and (2) increase the effectiveness of State Long Term Care Ombudsmen Volunteers (LTCOUs). Short term training and continuing education will be provided in 5 sessions at 5 sites on the Island to 80 LTCOUs and to 70 staff and administrators of long term care facilities, service provider agencies, and Department of Social Services. The curriculum (in both Spanish and English) will cover ombudsman and protective services for the elderly, local laws relevant to these services, and legal rights of the elderly.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0428
Jackson State University
Department of Sociology
1400 J.R. Lynch Street
Jackson, MS 39217
Short-Term Training on Continuity Care for Medical Social Workers, Case Managers, and Outreach Workers in Mississippi
Felix A. Okojie , Ph.D.
(601) 968-2591
09/30/89 - 02/28/91 AoA : $ 0 $ 0 $ 75,000
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Community-based Care Systems Development/Improving Linkages;
Health Care/Services - Physical

This project will develop a two-day continuing education training program for medical social workers, case managers, and outreach workers who are responsible for the continuity of care of frail elderly between acute, long-term care, and community and in-home care service systems in the State of Mississippi. It will produce and disseminate a set of learning materials that incorporate and supplement existing training materials on discharge planning and related subjects that will be tested and refined in training sessions reaching atleast 125 participants divided into two groups (outreach workers with one curriculum, medical social workers and case managers with another). Training will be sanctioned by the State associations for social work and hospitals, the State and Area Agencies on Aging, the State gerontological society, and two Historically Black Colleges and Universities, Tougaloo and Jackson State Universities.

CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS
Training

90AT0438
Older Alaskans Commission
Department of Administration
Box C
Juneau, AK 99811-0209
Curriculum Adaptation for Training of American Native Homemaker-Home Health Aides
Edith J. Sidle
(907) 456-3250
09/30/89 - 01/31/91 AoA : $ 0 $ 0 $ 99,965
CONTINUING EDUCATION AND TRAINING FOR PROFESSIONALS AND/OR PARAPROFESSIONALS;
Supportive Services;
EMP

This project will adapt the 75 hour competency-based home-maker home-health aide training curriculum for use by rural Native American paraprofessionals. Cooperation with the U.S. Indian Health Service and the U.S. Department of Labor will assure employment of low-income Native Americans as home-based care providers for elderly residents of remote Alaskan native villages. An expert advisory committee will work with a curriculum development specialist to adapt the home-maker curriculum for low reading level students. The adapted curriculum will be pilot-tested with three groups of 20 native Alaskans in cooperation with minority-operated aging service provider organizations.

DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA
Research

90AT0429
Hunter College, CUNY
School of Health Sciences
695 Park Avenue
New York, NY 10021
Sound Advice: Options for Hearing Impaired Elders and Their Families
Carol Silverman , Ph.D.
(212) 481-4464
09/01/89 - 12/31/90 AoA : $ 0 $ 0 $ 147,865
DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA

This project will produce a broadcast quality video that counters stigma and misconceptions which many persons have about hearing impairment. It will encourage and guide haring impaired elderly in need of diagnosis and remediation. The film will be available to PBS stations nationwide and will target 10 million hearing impaired persons over the age of 55. It will also include family, friends, and professionals who have frequent contact with hearing impaired elderly. The video will document and follow the lives of four real hearing impaired persons. We will see the impact of unremediated hearing impairment on their social relationships and psychological well-being, what finally prompts intervention, and how they are coping post-intervention. Also included will be what assistive listening devices they have found helpful and to what they attribute their coping success or failure. The video will be close-captioned.

DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA
Technical Assistance

90AT0371
American Association of Dental Schools
1625 Massachusetts Ave., N.W.
Washington, DC 20036
Preparing Dental Hygienists to Serve the Oral Health Needs of Older People
Mercedes Bern Klug
(202) 667-9433
09/30/88 - 02/28/91 AoA : $ 0 $ 139,030 $ 14,595
DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA;
Health Promotion - Dental;
Career Preparation for Professionals and/or Paraprofessionals

The purpose of the project is to improve the geriatric education provided at U.S. schools of Dental Hygiene. The project will establish AADS curriculum guidelines for dental hygiene programs, produce a resource book for faculty to use in implementing the guidelines, and present the resource material to dental hygiene faculty through a national two-day workshop. Project materials, including journal articles, and newsletter items will focus on increasing the knowledge of dental hygiene faculty about the scope and content of geriatric dentistry and integrating this content into didactic and clinical experiences for students.

DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA
Training

09AT0090
University of Southern California
School of Dentistry, Room 4244
University Park MC 0641
Los Angeles, CA 90089-0641
Computer-Assisted Training Simulations in Geriatric Dentistry
Roseann Mulligan
(213) 743-6333
09/30/88 - 02/28/90 AoA : $ 0 $ 88,149 $ 0
DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA;
Health Promotion - Dental

The project will develop and disseminate a computer-assisted instructional (CAI) program to simulate dental and dental hygiene students' interaction with elderly patients. The objective is to improve the students' training in evaluation and assessment for treatment of elderly and medically compromised patients, including consideration of medical status and medication usage. Expected outcomes include experience in modifying pretreatment plans and transference of computer-acquired skills to clinical interaction with geriatric patients. The CAI software and student manual will be disseminated to dental and dental hygiene education programs.

DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA
Training

09AT0091
University of Southern California
School of Pharmacy
1985 Zonal Avenue
Los Angeles, CA 90033
Expansion and Integration of Gerontologic and Geriatric Curriculum for Student Pharmacists
Bradley R. Williams
(213) 224-7551
09/30/88 - 02/28/90 AoA : $ 0 $ 80,159 $ 0
DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA;
Career Preparation for Professionals and/or Paraprofessionals;
Health Promotion/Health Education

The project will develop and implement a joint Doctor of Pharmacy - Graduate Certificate in Gerontology; offer an intensive course focusing on older patients; and integrate geriatric material into the core pharmacy curriculum. The project will also: publish a monograph describing the Pharm. D. - Graduate Certificate Program; present a curriculum development workshop at a meeting of a national professional society; and graduate approximately 150 pharmacy students annually who are trained in gerontology and geriatrics.

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PROJECT — **FUNDING** FY 1987 — FY 1988 — FY 1989

DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA
Training

90AT0365
Foundation for Hospice and Home Care
519 C Street, N.E.
Washington, DC 20002
Improving Accreditation Requirements in Aging by Training and Certifying Paraprofessionals
Ann Mootz
(202) 547-6586
09/01/88 - 01/31/90 AoA : $ 0 $ 118,220 $ 0
DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA:
Career Preparation for Professionals and/or Paraprofessionals

The project is developing a national certification program for paraprofesionals and paraprofessional training programs. Based on the 'Model Curriculum and Training Guide for the Instruction of Homemaker-Home Health Aides' (developed by the National Home Caring Council) and be integrated into the National Home Caring Council's Accreditation Program to maximize the impact and benefit. Program development will involve an advisory committee with nationally known homemaker educators and agency administrators. The revised curricula will be tested in three states in cooperation with State Agencies on Aging. The curricula and certification model will incorporate new standards established by the Health Insurance Finance Administration for medicine in-home health services.

DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA
Training

90AT0394
Syracuse University
All-University Gerontology Center
Brockway Hall
Syracuse, NY 13244-6380
Strategy for Tomorrow's Managers: Knowledge & Skills for Aging Population
Neal Bellos, Ph.D.
(315) 443-5587
02/28/90 - 06/30/90 AoA : $ 0 $ 149,551 $ 0
DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA:
Career Preparation for Professionals and/or Paraprofessionals

This project sensitizes future management professionals to specific needs of the elderly in such a way that they will use this awareness throughout their careers to enhance the lives of older persons. Instructional modules in marketing and management programs are being developed and disseminated. The content of the materials is being identified by knowledgable gerontologists and representatives from management. The instructional design of the materials is be created on the basis of established learning principles and motivational theory. Expected outcomes include curriculum materials for marketing and management education.

DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA
Training

90AT0411
Grambling State University
School of Social Work
Box 4274, BSU
Grambling, LA 71245
Faculty and Curriculum Development in Gerontology in HBCUs in South West
V. T. Samuel , Ph.D.
(318) 274-2369
10/01/89 - 02/28/90 AoA : $ 0 $ 0 $ 121,726
DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA

Grambling State University will provide gerontological training for current Historically Black Colleges and Universities (HBCUs) behavioral and social science faculty and curriculum development. Grambling will conduct a three-semester, nine-weekend in-service gerontology training institute for fourteen (14) faculty members identified by their respective deans and/or department chairs. The institute will include academic and fielding learning. Each participant will be assigned to a faculty liaison who will serve as a mentor. The project will follow-through on the commitment to institutionalize gerontological content in the undergraduate curricula in eleven (11) HBCUs, and a southwest aging consortium (SWAC) which will provide information and faculty exchange.

DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA
Training

90AT0413
University of Kansas
Gerontology Center
316 Strong Hall
Lawrence, KS 66045
Faculty Development in Gerontology for Faculty of American Indian Colleges
Robert John , Ph.D.
(913) 864-4130
10/01/89 - 01/31/90 AoA : $ 0 $ 0 $ 150,000
DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA

This 17-month collaborative project will use the gerontological resources and expertise of the University of Kansas, Kansas State University, and American Indian University faculty to provide gerontological training for 25 faculty of the 25 American Indian Colleges. Building gerontological expertise among faculty serving Indian communities will expand access to this field of study and address community needs. Training will center on a 3-week summer institute on American Indian aging that will include instruction in three gerontological areas: the sociology, psychology and biology/health of aging with a focus on policy, economics, and the uniqueness of American Indians.

DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA
Training

90AT0422
University of Hawaii
2540 Maile Way
Honolulu, HI 96822
Pacific Geriatric Social Work Education Curriculum Replication Consortium Project
Colette V. Browne
(808) 948-6126
10/01/89 - 02/28/91 AoA : $ 0 $ 0 $ 130,421
DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA

This project will replicate the existing University of Hawaii School of Social Work geriatric/gerontologic education curriculum. Through faculty meetings, workshops, consultations, and conferences, the project will: (1) train at least 10 key social work educators in the effective application of a curriculum on aging concepts and practice; (2) incorporate such content, with emphasis on multicultural older adults, into the curricula of at least 7 institutions; (3) increase community awareness of the need for specialized training on aging; and (4) establish a permanent network for research, curriculum development, practicum and faculty visitations and exchange, and other activities. Products will include the development of professional articles and a handbook on curriculum implementation. One hundred students will be trained as a direct result of the benefits of the project.

DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA
Training

90AT0427
University of Southern California
Andrus Gerontology Center
University Park
Los Angeles, CA 90089-0191
Faculty Development for Gerontology Program Enhancement
Pamela West
(213) 743-5156
/ / - 01/01/99 AoA : $ 0 $ 0 $ 149,873
DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA

This project is designed to develop and implement a model faculty development program that builds on the current basic gerontological knowledge of faculty at five to seven Southern California institutions of higher education. In a three phase process, this project will enhance the expertise of its participants and provide for the development of organized sequences of instruction in gerontology on their campuses.

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PROJECT

FUNDING
FY 1987 FY 1988 FY 1989

DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA
Training

90AT0439
Hunter College, CUNY
Brookdale Center on Aging
425 East 25 Street
New York, NY 10010
Faculty Development and Minority Career Development for Gerontology in Urban Higher Education
Maria Hodges , MSW
(212) 481-4426
10/01/89 - 12/29/91 AoA : $ 0 $ 0 $ 149,973
DEVELOPMENT OF ACADEMIC INSTITUTIONS/FACULTY/CURRICULA

The Brookdale Center on Aging of Hunter College will undertake a collaborative effort with the Borough of Manhattan Community College and New York City Technical College to increase the number of qualified minorities to work in the field of aging. Both of these institutions have a high minority enrollment. Brookdale will assist these two institutions to: (a) strengthen content knowledge; (b) put in place an enhanced curriculum, including new courses, course modules, and specialized educational opportunities; (c) establish career counseling knowledge for the field of aging among faculty and counseling staff to offer career advisement to minority students; and (d) establish a permanent consortium for educational programs in gerontology and in minority aging issues, initially among the three sponsoring campuses, and eventually through all 15 campuses of the New York City University system.

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0353
National Caucus and Center on Black Aged
1424 K Street NW, Suite 500
Washington, DC 20005
Minority Training & Development in Long Term Care
Samuel Simmons, Ph.D.
(202) 637-8400
10/01/87 - 01/31/90 AoA : $ 150,001 $ 0 $ 0
PLACEMENT/TRAINEESHIP PROGRAMS;
Career Preparation for Professionals and/or Paraprofessionals

This project will address the need for the minority elderly in long term care by 1) recruiting and placing seven (7) qualified minority trainees in long term care facilities and community-based programs for twelve months of training: 2) providing for appropriate in-service training to prepare them for permanent placement in the host agency after training is completed; 3) placing trainees in permanent management positions; and 4) obtain private sector support totalling at least $150,000 annually to train and place a minimum of 18-24 trainees over a five year period. This project will help qualified minorities access management positions in long term care facilties. It will also help these facilities recruit and hire qualified, well trained minority managers. The National Caucus on Black Aged will work with the American Association of Homes for the Aged and State and Area Agencies on Aging to locate host agencies to sponsor these trainees.

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0366
SUNY College at Old Westbury
P.O. Box 9
Albany, NY 12246
A Facilitating Minority Management Traineeship Program
Marvey Catchen, Ph.D.
(516) 576-2731
09/30/88 - 02/28/90 AoA : $ 0 $ 140,558 $ 0
PLACEMENT/TRAINEESHIP PROGRAMS;
Career Preparation for Professionals and/or Paraprofessionals

This project will increase the number of minorities in management and administrative positions by placing 10 graduate trainees in 15-month training positions in agencies that service the elderly. At termination of the training, trainees are expected to be hired as managers/administrators and/or assisted in locating employment in the aging network. Trainees will attend a monthly management training workshop and receive on-site supervision by project staff. A quarterly newsletter and 'how-to' manual will be produced and disseminated.

ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT — FUNDING FY 1987 — FY 1988 — FY 1989

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0367
Delaware State College
Department of Social Work
1200 N. Dupont Highway
Dover, DE 19901-2275
Minority Management Traineeship Program
Adelle Indelicato
(302) 736-3536
09/01/88 - 02/28/90 AoA : $ 0 $ 64,278 $ 0
PLACEMENT/TRAINEESHIP PROGRAMS;
Career Preparation for Professionals and/or Paraprofessionals

This project will increase the number of minorities in management and administration positions by recruiting and placing eight minority students in selected field practicum sites in areas that impact on the elderly. Strategies for implementation include agency supervision of day-to-day tasks, weekly individual and group (unit) supervision, and monthly seminars on selected topics and issues on aging. Products include a program design and evaluation as well as the employment of trainees as managers or administrators in the aging network.

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0368
California State University at Long Beach
Department of Social Work
1250 Bellflower Boulevard
Long Beach, CA 90840
Minority Management Training Program for Social Workers Specializing in Aging
Janet Black, LCSW
(213) 985-8180
09/01/88 - 06/30/90 AoA : $ 0 $ 142,114 $ 0
PLACEMENT/TRAINEESHIP PROGRAMS;
Career Preparation for Professionals and/or Paraprofessionals

This project is designed to prepare minority students for administration and management positions in the aging network, and to upgrade skills of social service workers already employed in the network. Students will complete a field work placement and classroom work for the MSW degree. A curriculum and training materials on agency administration and management will be developed. A total of 8 students will receive stipends and tuition awards. After completion of the program, students will be given assistance in locating employment, if needed.

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0369
North Carolina Central University
Public Administration Program
P.O. Box 19552
Durham, NC 27707
Minority Management Traineeship Program.
Lisa Groger, Ph.D.
(919) 683-6240
09/30/88 - 03/30/90 AoA : $ 0 $ 148,144 $ 0
PLACEMENT/TRAINEESHIP PROGRAMS;
Career Preparation for Professionals and/or Paraprofessionals

This project will increase the number of minorities in management and administration positions by recruiting and placing ten (10) university students (seniors and/or masters level) in a 9-month training program in State and area agencies on aging. Trainees will be hired by thier host agencies if employment is available and/or assisted in locating employment.

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0379
New York State Office for the Aging
Affirmative Action and Training
Building 2, Empire State Plaza
Albany, NY 12223-0001
Minority Training and Development Program
Carmen Cunningham
(518) 473-8718
09/30/88 - 02/28/90 AoA : $ 0 $ 132,476 $ 0
PLACEMENT/TRAINEESHIP PROGRAMS;
Career Preparation for Professionals and/or Paraprofessionals

This project will recruit and place six minority persons in area agencies on aging (AAAs) as management trainees. They will be trained to assume administrative and management positions in the aging network through their on-the-job training, agency supervison, workshops, etc., and given assistance in locating employment if they are not employed by their host agencies. Expected outcomes are: (1) increased number of minority professionals in the field of aging; (2) increased capacity of the AAA's to serve underserved or unserved minority groups; (3) increased numbers of minorities receiving services; (4) a detailed evaluation of each of the major project components in 'how to' language to facilitate replication; and (5) increased capacity of minority elderly communities to advocate for services.

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0380
Asociacion Nacional Pro Personas Mayores
2722 West Sixth Street, Suite 270
Los Angeles, CA 90057
Hispanic Gerontological Traineeship Program
Carmela Lacayo
(213) 487-1922
09/30/88 - 05/31/90 AoA : $ 0 $ 145,680 $ 0
PLACEMENT/TRAINEESHIP PROGRAMS;
Continuing Education and Training for Professionals and/or Paraprofessionals

This program will recruit, select and place eight Hispanic graduates or professionals in paid, six month administrative level training positions in public and private sector aging-related agencies; provide administration and management training for trainees, and guide host agencies in the provision of this training; and permanently place trainees at the end of the training. Expected project outcomes include an increase in elder Hispanics' access to badly needed social services, an increase in the number of well-trained Hispanic administrative personnel in gerontology, more culturally sensitive social services for Hispanic elders, and more job opportunities in gerontology for Hispanics. Project products include: a cadre of Hispanics trained and available for permanent employment in gerontology; a handbook of trainee-developed impact projects aimed at assisting host agencies to reach and provide services for Hispanic elders; and training materials aimed at recruiting, training and maintaining Hispanics in the field of aging.

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0382
National Hispanic Council on Aging
2713 Ontario Rd., N.W.
Washington, DC 20009
A Training Program in Management for Hispanic Gerontologists
Marta Sotomayor, Ph.D.
(202) 745-2521
09/30/88 - 02/28/90 AoA : $ 0 $ 145,254 $ 0
PLACEMENT/TRAINEESHIP PROGRAMS;
Career Preparation for Professionals and/or Paraprofessionals

This program will recruit and place six Hispanics as management trainees in State Agencies on Aging, Area Agencies on Aging and other agencies that deliver services to the elderly.These agencies will provide a 12-month experience for the trainees in the area of administration and management. At the completion of the traineeship, they will be employed by the host agency and/or assisted in locating employment. In addition to the agency experience, project personnel will provide training and assistance to the trainees. The project will produce a technical assistance video.

ACTIVE GRANTS
Under Title IV of the Older Americans Act
As of 12/11/89

PROJECT	FUNDING FY 1987	FY 1988	FY 1989

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0393
Hunter College, CUNY
659 Park Avenue
New York, NY 10021
Training Minority Managers in the Field of Aging
Yvonne Asamoah, MSW
(212) 570-5032
09/30/88 - 02/28/90 AoA : $ 0 $ 134,891 $ 0
PLACEMENT/TRAINEESHIP PROGRAMS;
Career Preparation for Professionals and/or Paraprofessionals;
Continuing Education and Training for Professionals and/or Paraprofessionals

This project will select 20 minority persons from social service agencies serving the elderly for enrollment in a graduate program in social work with special training as managers or administrators in the aging network. Training will include a specialized content in aging, professional social work education, and management and minority issues. Academic courses, intensive field work, seminars related to the aged and minority leadership and management, a mentoring system, and continuity between training and employment are some of the components of this program. Expected outcomes include: a model of training and retaining minority managers, a new cadre of minority professional managers in aging, and an expanded network for professional minority managers.

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0400
City of Chicago
Department on Aging and Disability
510 North Peshtigo Court, 3A
Chicago, IL 60611
Chicago Minority Management Program for the Aging Network
Renee Lumpkin
(312) 744-5783
09/30/88 - 02/28/90 AoA : $ 0 $ 131,752 $ 0
PLACEMENT/TRAINEESHIP PROGRAMS;
Career Preparation for Professionals and/or Paraprofessionals

This program will recruit and place 15 minority college graduates in human service agencies that deliver services to the elderly. Trainees, supervised by managers in the host agencies, will be placed in administration and management positions with exposure to the basic concepts and skills of management. This training is designed for the trainee to be hired in management and administration positions in which he/she receives training. Trainees will be assisted in locating employment if not retained by the host agency.

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0468
Asociacion Nacional Pro Personas Mayores
2727 West Sixth Street, Suite 270
Los Angeles, CA 90057
Hispanic Gerontological Traineeship Program
Carmela Lacayo
(213) 487-1922
10/01/89 - 11/30/90 AoA : $ 0 $ 0 $ 193,121
PLACEMENT/TRAINEESHIP PROGRAMS;
Career Preparation for Professionals and/or Paraprofessionals

The Hispanic Gerontological Traineeship program (HGIP) will select and place nine (9) trainees in paid six-month administrative level traineeships in public and private sector aging related agencies. The HGIP will assist host agencies in providing management training to trainees, and place them in permanent jobs. This program will also strengthen existing cooperative links between the aging network and the Asociacion to help design appropriate services for the elderly and for Hispanic professionals. The results of this project will include an increase in elderly Hispanics access to service, increased numbers of well-trained Hispanic managerial persons in the aging network and more culturally sensitive services for the Hispanic elders.

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0416
National Caucus and Center on Black Aged
1424 K Street, N.W.
Suite 500
Washington, DC 20005
Minority Training and Development Program in Long Term Care
Irene Packer
(202) 637-8400
10/01/89 - 01/01/91 AoA : $ 0 $ 0 $ 200,000
PLACEMENT/TRAINEESHIP PROGRAMS;
Continuing Education and Training for Professionals and/or Paraprofessionals

The project will prepare seven trainees to pass State licensure exams and obtain permanent placement as long-term care or nursing home administrators. This will expand the small network of minority nuring home administrators in the nation. The participants will serve a traineeship at a State-certified host agency, fulfill all pre-licensure requirements under the supervision of a registered preceptor; receive on-going exposure to the local, State and national long-term care networks; and receive a variety of in-service training experiences and job development. Trainees will be assisted in locating employment. Outcomes consist of private sector support, the licensure and placement of seven trainees and improved effectiveness in service delivery to minority and non-minority elderly.

PLACEMENT/TRAINEESHIP PROGRAMS
Training

90AT0417
National Hispanic Council
2713 Ontario Road, N.W.
Washington, DC 20009
Increasing the Pool of Hispanic Gerontologists
Marta Sotomayor , Ph.D.
(202) 745-2521
10/01/89 - 03/30/91 AoA : $ 0 $ 0 $ 199,980
PLACEMENT/TRAINEESHIP PROGRAMS;
Career Preparation for Professionals and/or Paraprofessionals

This project will recruit and place six trainees in State and Area Agencies on Aging and other agencies that devliver services to the elderly as management/administrative trainees. Trainees will be placed in the office of the dDirector of the host agency for a 12-month experience and receive frequent supervision and direction. A local mentor will be identified to assist in the day-to-day educational program of the trainee. At the completion of the traineeship, trainee will be employed by the host agency and/or assisted in locating employment. Supervision, monitoring, and eventual placement of the trainees will be coordinated and implemented by NHCOA in concert with host agencies.

OTHER
Information Dissemination/Public Education

90PD0129
Birch and Davis Associates, Inc
8905 Fairview Road, Suite 300
Silver Spring, MD 20910
Disseminate Material on Self Sufficiency
Stephanie E. Karsten
(301) 589-6760
01/01/88 - 03/31/90 AoA : $ 0 $ 0 $ 0
OPPL : $ 109,495 $ 101,312 $ 0
OTHER

This project will develop and publish a professionally prepared book for grantees on effective dissemination of the results of projects under Title IV.

OTHER
Research

90AR0122
Research Foundation for Mental Hygiene
Research Institute on Alcoholism
44 Holland Avenue
Albany, NY 12229
Etiology and Prevalence of Drinking Patterns in the Elderly
John Welte , Ph.D.
(716; 887-2503
09/01/89 - 08/31/91 AoA : $ 0 $ 0 $ 124,245
OTHER

A telephone survey will be conducted of 2400 Erie County, New York residents 60 or older. Heavy drinkers will be over-sampled.Questions include demographics, lifetime drinking patterns and problems, prescription drug abuse, stressful life events and chronic stresses, coping resources, social supports, health and somatic symptoms, active/leisure lifestyles, and health oriented lifestyle. Prevalence of patterns of drinking will be tabulated.
Products are to include reports, bulletins, and scientific papers which will be disseminated to appropriate audiences.

OTHER
Research

90AR0123
Clark Atlanta University
223 James P. Brawley
Atlanta, GA 30314
Studies on Alcohol Abuse Among the Black Elderly
Amos Ajo , Ph.D.
(404) 880-8563
09/30/89 - 09/29/91 AoA : $ 0 $ 0 $ 42,619
OTHER

The purpose of this study is to establish a computerized data base for estimating the incidence and prevalence of alcohol abuse among the aged in the black population and to develop a theoretical framework or model for understanding and preventing alcohol problems in the elderly black population. The data to be used in the study will be collected in three phases: (1) observational method; (2) survey of agencies and services provided in Southwest Atlanta; and (3) questionnaire study of over 1000 elderly black persons by face-to-face interviews.

OTHER
Research

90AR0124
Center for Social Gerontology
117 North First Street
Ann Arbor, MI 48104
National Study of Guardianship Systems and Feasibility of Implementing Expert Systems
Pennelope Hommel
(313) 665-1126
09/30/89 - 09/30/91 AoA : $ 0 $ 0 $ 135,193
OTHER

The purposes of this project are twofold: (1) to develop knowledge about guardianship systems; and (2) to study the feasibility of developing computerized expert systems. Statistical and descriptive data will be collected concerning specific State practices related to the imposition and provision of guardianship services: (1) process of imposing and monitoring guardianship and the effect of laws upon that process; (2) numbers and characteristics of adults affected by guardianship; (3) nature of guardianship and impact on individuals; (4) factors that 'trigger' the filing of petitions for guardianship; (5) availability, utilization, and effectiveness of guardianship alternatives; and (6) providers of guardianship services. The University of Missouri-Kansas City and the Older Womens League will participate in conducting this project. An advisory task force will be convened to study the viability of expert systems to assist professionals in assessing individuals' needs for guardianship. Products will include a model data collection form, reports of findings based on the analysis of data and the advisory task force, the OWL education campaign, and a monograph planning alternative services for SUA's.

NATIONAL INSTITUTE ON AGING ACTIVE GRANTS IN FY89

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 P01AG00001-16S2	PETERS, ALAN AGING AND THE NERVOUS SYSTEM	07-01-89	06-30-90	BOSTON UNIVERSITY	60,000
2 T32AG00029-14	COHEN, HARVEY J BEHAVIOR AND PHYSIOLOGY IN AGING	09-01-89	08-31-90	DUKE UNIVERSITY	116,397
5 R01AG00029-15	PATTERSON, DAVID GENE EXPRESSION IN SOMATIC CELLS IN THE AGING PROCESS	06-01-89	05-31-90	ELEANOR ROOSEVELT INST FOR CANCER RES	349,82
5 T32AG00030-13	STORANDT, MARTHA A AGING AND DEVELOPMENT	09-01-89	08-31-90	WASHINGTON UNIVERSITY	89,700
5 T32AG00037-13	BENGTSON, VERN L GERONTOLOGY	09-01-89	08-31-90	UNIVERSITY OF SOUTHERN CALIFORNIA	246,187
5 T32AG00045-13	CLARK, M MARGARET ANTHROPOLOGICAL GERONTOLOGY	09-01-89	08-31-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	142,12
5 T32AG00048-13	ZARIT, STEVEN H GERONTOLOGY	07-01-89	06-30-90	PENNSYLVANIA STATE UNIVERSITY PARK	191,40
5 T32AG00056-07	KAHANA, EVA F HEALTH RESEARCH IN AGING	09-01-89	08-31-90	CASE WESTERN RESERVE UNIVERSITY	70,84
5 T32AG00057-12	MARTIN, GEORGE M GENETIC APPROACHES TO AGING RESEARCH	07-01-89	06-30-90	UNIVERSITY OF WASHINGTON	340,79
5 T32AG00078-10	HOLLOSZY, JOHN O EXERCISE AS PREVENTIVE MEDICINE IN THE AGING PROCESS	09-01-89	08-31-90	WASHINGTON UNIVERSITY	144,36
5 T32AG00080-10	KLINMAN, NORMAN R IMMUNOLOGICAL & NEUROBIOLOGICAL ASPECTS OF AGING	09-01-89	08-31-90	SCRIPPS CLINIC AND RESEARCH FOUNDATION	192,73

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 T35AG00086-10	GRAFSTEIN, BERNICE SHORT-TERM RESEARCH TRAINING	04-15-89	04-14-90	CORNELL UNIVERSITY MEDICAL CENTER	59,12
5 T35AG00089-09	FLANAGAN, THOMAS D SHORT-TERM RESEARCH TRAINING	09-01-89	08-31-90	STATE UNIVERSITY OF NEW YORK AT BUFFALO	63,43
5 T32AG00093-08	FINCH, CALEB E ENDOCRINOLOGY AND NEUROBIOLOGY OF AGING	09-01-89	08-31-90	UNIVERSITY OF SOUTHERN CALIFORNIA	272,69
5 T32AG00096-08	COTMAN, CARL W NEUROBIOLOGY OF AGING	09-01-89	08-31-90	UNIVERSITY OF CALIFORNIA IRVINE	169,28
2 T32AG00105-06	CAPLAN, ARNOLD I CELLULAR AND MOLECULAR AGING	09-01-89	08-31-90	CASE WESTERN RESERVE UNIVERSITY	165,55
2 T32AG00107-06	COLEMAN, PAUL D GERIATICS AND NEUROBIOLOGY OF AGING	03-10-89	02-28-90	UNIVERSITY OF ROCHESTER	258,50
5 T32AG00111-07	SISKIND, GREGORY W IMMUNOBIOLOGY OF AGING	09-01-89	08-31-90	CORNELL UNIVERSITY MEDICAL CENTER	53,21
5 T32AG00114-05	ADELMAN, RICHARD C MULTIDISCIPLINARY RESEARCH TRAINING IN AGING	09-01-89	08-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	273,0
5 T32AG00115-05	POLGAR, PETER R PRE AND POST DOCTORAL TRAINING IN BIOCHEMISTRY OF AGING	09-01-89	08-31-90	BOSTON UNIVERSITY	160,90
5 T32AG00116-05	SLY, DAVID F DEMOGRAPHY OF AGING	08-01-89	07-31-90	FLORIDA STATE UNIVERSITY	49,53
5 T32AG00117-05	DUNKLE, RUTH E SOCIAL RESEARCH TRAINING ON APPLIED ISSUES OF AGING	08-01-89	07-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	193,26
5 T32AG00120-04	GOLDBERG, ANDREW P RESEARCH TRAINING IN GERONTOLOGY AND GERIATRICS	06-01-89	05-31-90	JOHNS HOPKINS UNIVERSITY	137,38

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 T32AG00121-03	WALFORD, ROY L IMMUNOBIOLOGY OF AGING	02-01-89	01-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	74,76
5 T32AG00122-04	GORSKI, ROGER A NEURAL REGULATION OF REPRODUCTION: MODELS OF AGING	09-01-89	08-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	26,13
5 T32AG00123-04	MARSHALL, JOHN C TRAINING PROGRAM IN ENDOCRINOLOGY, METABOLISM, AND AGING	06-01-89	05-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	69,75
5 T32AG00124-04	HOLT, PETER R DIGESTIVE DISEASE AND AGING TRAINING PROGRAM	09-01-89	08-31-90	ST. LUKE'S ROOSEVELT HOSP CTR (NEW YORK)	64,52
5 T32AG00126-04	COOK, FAY L RESEARCH TRAINING IN AGING AND SOCIAL POLICY	06-01-89	05-31-90	NORTHWESTERN UNIVERSITY	87,60
5 T32AG00129-04	FEATHERMAN, DAVID L POPULATION, LIFE COURSE, AND AGING	07-01-89	06-30-90	UNIVERSITY OF WISCONSIN MADISON	118,29
5 T32AG00130-04	KAYSER-JONES, VIRGENE S RESEARCH TRAINING IN GERONTOLOGICAL NURSING	09-01-89	08-31-90	UNIVERSITY OF SAN FRANCISCO	36,45
5 T32AG00131-04	CRISTOFALO, VINCENT J TRAINING IN CELLULAR AND MOLECULAR ASPECTS OF AGING	05-01-89	04-30-90	UNIVERSITY OF PENNSYLVANIA	27,13
5 T32AG00134-04	LIANG, JERSEY PUBLIC HEALTH AND AGING	09-01-89	08-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	80,55
5 T32AG00137-04	PETERSON, WARREN A INTER-UNIVERSITY TRAINING - ADULT DEVELOPMENT AND AGING	02-01-89	01-31-90	UNIVERSITY OF MISSOURI KANSAS CITY	275,64
*5 T32AG00139-03	MYERS, GEORGE C MEDICAL DEMOGRAPHY AND SOCIAL EPIDEMIOLOGY OF AGING	12-01-88	11-30-89	DUKE UNIVERSITY	121,21
3 T32AG00139-03S1	MYERS, GEORGE C MEDICAL DEMOGRAPHY AND SOCIAL EPIDEMIOLOGY OF AGING	09-01-89	11-30-89	DUKE UNIVERSITY	9,5

LYL0004

RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
T32AG000140-14	SPEARE, ALDEN JR DEMOGRAPHY OF AGING	07-01-89	06-30-90	BROWN UNIVERSITY	85,062
T32AG000143-04	HESTON, LEONARD L BEHAVIORAL GENETICS/BIOLOGY OF AGING	09-01-89	08-31-90	UNIVERSITY OF MINNESOTA OF MNPLS-ST PAUL	48,141
5 T32AG000144-03	KOWAL, JEROME RESEARCH TRAINING IN GERIATRIC MEDICINE	08-01-89	07-31-90	CASE WESTERN RESERVE UNIVERSITY	131,854
5 T32AG000149-03	FOLSTEIN, MARSHAL F RESEARCH TRAINING IN THE DEMENTIAS OF AGING	08-01-89	07-31-90	JOHNS HOPKINS UNIVERSITY	132,382
5 T32AG000150-02	BENTLEY, DAVID W TRAINING IN IMMUNOLOGY AND INFECTIOUS DISEASES	07-01-89	06-30-90	UNIVERSITY OF ROCHESTER	71,925
5 T32AG000151-03	HERMALIN, ALBERT I DSOCIAL AND ECONOMIC DEMOGRAPHY	07-01-89	06-30-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	103,044
5 T32AG000153-02	KASL, STANISLAV V RESEARCH TRAINING IN THE EPIDEMIOLOGY OF AGING	07-01-89	06-30-90	YALE UNIVERSITY	176,21
1 T32AG000154-01A1	REAVEN, GERALD M GERIATRICS GERONTOLOGY	09-01-89	08-31-90	STANFORD UNIVERSITY	139,284
2 T32AG000155-02	ELDER, GLEN H, JR DEMOGRAPHY OF AGING AND THE LIFE COURSE	09-01-89	08-31-90	UNIVERSITY OF NORTH CAROLINA CHAPEL HILL	51,997
1 T32AG000156-01A1	HORN, JOHN L FORMING SCIENCE CAREERS IN DEVELOPMENTAL NEUROCOGNITION	09-01-89	08-31-90	UNIVERSITY OF SOUTHERN CALIFORNIA	81,28
*2 T32AG000158-02	EVANS, DENIS A TRAINING PROGRAM IN EPIDEMIOLOGIC RESEARCH ON AGING	09-05-89	08-31-90	BRIGHAM AND WOMEN'S HOSPITAL	119,53
5 T32AG000159-02	CRIMMINS, EILEEN M DEMOGRAPHY OF AGING	07-01-89	06-30-90	UNIVERSITY OF SOUTHERN CALIFORNIA	80,40

NATIONAL INSTITUTE ON AGING ACTIVE GRANTS IN FY89

RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
T32AG000160-03	GREER, DAVID S INSTITUTIONAL NATIONAL RESEARCH SERVICE AWARD	09-30-89	09-29-90	BROWN UNIVERSITY	29,096
T32AG000161-03	EATON, WILLIAM W PSYCHIATRIC EPIDEMIOLOGY TRAINING GRANT	07-01-89	06-30-90	JOHNS HOPKINS UNIVERSITY	56,343
T32AG000162-02	WALLACE, ROBERT B TRAINING PROGRAM IN EPIDEMIOLOGY & BIOMETRY OF AGING	06-01-89	05-30-90	UNIVERSITY OF IOWA	91,294
T32AG000164-02	DEMENT, WILLIAM C RESEARCH TRAINING IN GERIATRIC SLEEP DISORDERS MEDICINE	04-01-89	03-31-90	STANFORD UNIVERSITY	103,577
5 T32AG000165-02	BOWMAN, BARBARA H TRAINING PROGRAM IN MOLECULAR BASIS OF AGING	04-01-89	03-31-90	UNIVERSITY OF TEXAS HLTH SCI CTR SAN ANT	75,969
5 T32AG000169-02	GERMAN, PEARL S GERONTOLOGY IN PUBLIC HEALTH	09-01-89	08-31-90	JOHNS HOPKINS UNIVERSITY	106,040
5 T32AG000172-02	D FRANK BENSON, DEMENTIA AND BEHAVIORAL NEUROLOGY	09-01-89	08-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	69,820
5 T32AG000173-02	CLARK, ROBERT L DOCTORAL TRAINING IN ECONOMICS OF AGING	07-01-89	06-30-90	NORTH CAROLINA STATE UNIVERSITY RALEIGH	35,400
5 T32AG000175-02	SMITH, ANDERSON D RESEARCH TRAINING IN COGNITIVE AGING	07-01-89	06-30-90	GEORGIA INSTITUTE OF TECHNOLOGY	77,517
1 T32AG000177-01	PRESTON, SAMUEL H DEMOGRAPHY OF AGING	09-01-89	08-31-90	BOSTON UNIVERSITY	110,209
1 T32AG000181-01	KULLER, LEWIS H EPIDEMIOLOGY OF AGING	09-04-89	08-31-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	165,272
1 T32AG000182-01	ETTINGER, WALTER H GERONTOLOGY AND GERIATRIC MEDICINE	09-01-89	08-31-90	WAKE FOREST UNIVERSITY	134,290

RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
T32AG00183-01	MOSES, ROBB E CELL AND MOLECULAR BIOLOGY OF AGING	09-14-89	08-31-90	BAYLOR COLLEGE OF MEDICINE	59,180
T32AG00185-01	HOYER, WILLIAM J AGING AND COGNITIVE-NEUROSCIENCE	09-01-89	08-31-90	SYRACUSE UNIVERSITY AT SYRACUSE	73,440
T32AG00186-01	WISE, DAVID A ECONOMICS OF AGING-TRAINING PROGRAM	09-01-89	08-31-90	NATIONAL BUREAU OF ECONOMIC RESEARCH	50,080
T32AG00187-01	PERLMUTTER, MARION COMPLEMENTARY TRAINING PROGRAM IN PSYCHOLOGY OF AGING	09-01-89	06-30-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	102,912
T32AG00192-01	BIRREN, JAMES E RESEARCH TRAINING IN MENTAL HEALTH AND AGING	12-01-88	11-30-89	UNIVERSITY OF SOUTHERN CALIFORNIA	70,236
T32AG00194-01	HAMERMAN, DAVID AGING RESEARCH	09-13-89	08-31-90	YESHIVA UNIVERSITY	180,352
1 T32AG00196-01	MEYER, EDWIN M NEUROBIOLOGY OF AGING	09-01-89	06-30-90	UNIVERSITY OF FLORIDA	55,813
9 T32AG00197-05	KAHANA, EVA F RES TRAINING IN SOCIAL ASPECTS OF MENTAL HEALTH & AGING	09-05-89	08-31-90	CASE WESTERN RESERVE UNIVERSITY	96,849
5 K08AG00235-05	MARIN, ROBERT S NIA ACADEMIC AWARD: APATHY IN LATE LIFE MENTAL DISORDER	12-01-88	11-30-89	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	64,038
5 K08AG00236-05	SATLIN, ANDREW ACADEMIC AWARD--NIA	07-01-89	06-30-90	MC LEAN HOSPITAL (BELMONT, MA)	65,088
5 K08AG00260-04	MAHLER, MICHAEL E EVENT RELATED POTENTIALS--ALZHEIMER DISEASE	09-01-89	08-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	57,947
5 K08AG00265-05	UHLMANN, RICHARD F SENSORY IMPAIRMENT AND FUNCTION IN THE ELDERLY	02-01-89	01-31-90	UNIVERSITY OF WASHINGTON	57,358

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	END	INSTITUTION	TOTAL
5 K08AG00268-05	TONINO, RICHARD P NIA ACADEMIC AWARD: EXERCISE AND INSULIN RESISTANCE	02-01-89	01-31-90	UNIVERSITY OF VERMONT & ST AGRIC COLLEGE	61,733
5 K04AG00271-05	ANTONUCCI, TONI C SOCIAL SUPPORT OVER THE LIFE COURSE	06-01-89	05-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	53,529
K04AG00273-04	YELIN, EDWARD H FACTORS IN THE DECLINING FUNCTION OF THE AGING	12-01-88	11-30-89	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	55,296
K04AG00274-05	MITTENESS, LINDA S NATURAL HISTORY & FOLK ETIOLOGY OF AGE-RELATED DISORDERS	04-01-89	03-31-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	53,186
K04AG00276-05	KENNEDY, RICHARD H SENSITIVITY TO DIGITALIS-INDUCED ARRHYTHMIAS IN AGING	05-01-89	04-30-90	UNIVERSITY OF ARKANSAS MED SCIS LTL ROCK	44,777
K04AG00281-05	MILLER, RICHARD A CLONAL ANALYSIS OF T LYMPHOCYTE FUNCTION IN AGING	07-01-89	06-30-90	BOSTON UNIVERSITY	53,741
K08AG00282-06	BALIN, ARTHUR K DOES OXIDATIVE DAMAGE CONTRIBUTE TO THE AGING PROCESS	07-01-89	04-30-90	U.S. PHS PUBLIC ADVISORY GROUPS	48,117
5 K11AG00284-05	MILLER, BRUCE L CHOLINE TRANSPORT AND METABOLISM IN ALZHEIMER DISEASE	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	79,20
5 K11AG00289-05	GOLDMAN, ROBERT S NEURONAL FUNCTION RELEVANT TO ALZHEIMER'S DISEASE	08-01-89	07-31-90	YALE UNIVERSITY	75,64
5 K08AG00291-03	TREANOR, JOHN J STUDIES OF VIRAL GASTROENTERITIS IN THE ELDERLY	01-01-89	12-31-89	UNIVERSITY OF ROCHESTER	64,93
5 K08AG00292-05	TINETTI, MARY E ACADEMIC AWARD--IDENTIFYING FALL RELATED FACTORS	08-01-89	07-31-90	YALE UNIVERSITY	61,54
5 K12AG00294-05	BRAUNWALD, EUGENE PHYSICIAN SCIENTIST PROGRAM AWARD	08-01-89	07-31-90	HARVARD UNIVERSITY	816,78

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 K11AG00295-06	STOPA, EDWARD G HUMAN SUPRACHIASMATIC NUCLEI--AGE RELATED ALTERATION	09-01-89	08-31-90	STATE UNIVERSITY OF NEW YORK AT ALBANY	74,304
5 K04AG00296-05	MARINI, MARGARET M AGE, GENDER, AND CAREERS	09-01-89	08-31-90	UNIVERSITY OF MINNESOTA OF MNPLS-ST PAUL	56,160
5 K07AG00301-05	KOWAL, JEROME GERIATRIC LEADERSHIP ACADEMIC AWARD	08-01-89	07-31-90	CASE WESTERN RESERVE UNIVERSITY	86,353
K07AG00302-04	COE, RODNEY M GERIATRIC LEADERSHIP ACADEMIC AWARD	08-01-89	07-31-90	ST. LOUIS UNIVERSITY	81,666
K07AG00305-05	HALTER, JEFFREY B GERIATRIC LEADERSHIP ACADEMIC AWARD	08-01-89	07-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	84,853
K04AG00309-05	DE PAOLO, LOUIS V EFFECTS OF AGING ON THE REGULATION OF FSH SECRETION	09-01-89	08-31-90	WHITTIER INSTITUTE FOR DIABETES & ENDOC	52,750
K08AG00312-04	GANGULI, MARY NIA ACADEMIC AWARD: PREDICTORS OF MORTALITY IN DEMENTIA	09-01-89	08-31-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	60,243
K04AG00313-04	HUI, SIU LUI LONGITUDINAL STUDIES OF BONE LOSS IN AGING	03-01-89	02-28-90	INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS	57,244
K08AG00314-04	MEADOR, KIMFORD JAY IN VIVO PROBE CENTRAL CHOLINERGIC SYSTEMS	09-01-89	08-31-90	MEDICAL COLLEGE OF GEORGIA	51,624
7 R37AG00322-15	NEMETHY, GEORGE AGING--CONFORMATIONAL CHANGES OF COLLAGEN	08-01-89	06-30-90	MOUNT SINAI SCHOOL OF MEDICINE	110,464
5 K11AG00325-04	SOLSKY, MARILYN A CARTILAGE METABOLISM IN AGING AND OSTEOARTHRITIS	07-01-89	06-30-90	UNIVERSITY OF SOUTHERN CALIFORNIA	73,424
5 K04AG00327-04	SCHWARTZ, JANICE B EFFECT OF AGING ON CALCIUM BLOCKER KINETICS/DYNAMIC	01-01-89	12-31-89	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	52,866

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 K11AG00329-04	MAGNUSSON, KATHY R EXCITATORY AMINO ACIDS IN THE AGING BRAIN	06-01-89	09-30-89	UNIVERSITY OF MINNESOTA OF MNPLS-ST PAUL	13,715
5 K04AG00334-04	MERRILL, GARY F TK REGULATION DURING AGING AND DEVELOPMENT	06-01-89	05-31-90	OREGON STATE UNIVERSITY	56,160
5 K04AG00335-05	HERTZOG, CHRISTOPHER K INDIVIDUAL DIFFERENCES IN ADULT COGNITIVE DEVELOPMENT	08-01-89	07-31-90	GEORGIA INSTITUTE OF TECHNOLOGY	58,821
5 K08AG00342-03	SIU, ALBERT L HEALTH POLICY AND FUNCTIONAL STATUS	08-25-89	06-30-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	55,226
5 K04AG00344-04	EL-FAKAHANY, ESAM E AGING AND MUSCARINIC RECEPTORS IN INTACT BRAIN CELLS	08-01-89	07-31-90	UNIVERSITY OF MARYLAND BALT PROF SCHOOL	53,061
K08AG00345-04	HANG, SAN YOU EFFECTS OF AGING AND INSULIN BIOSYNTHESIS	08-01-89	07-31-90	HARVARD UNIVERSITY	58,360
K08AG00347-04	COON, PATRICIA J GLUCOSE AND LIPID METABOLISM IN OBESITY	08-01-89	07-31-90	JOHNS HOPKINS UNIVERSITY	58,986
K08AG00350-03	GORELICK, PHILIP B NEUROEPIDEMIOLOGY OF MULTI-INFARCT DEMENTIA	08-01-89	07-31-90	MICHAEL REESE HOSP & MED CTR (CHICAGO)	60,912
K12AG00353-03	SEEGMILLER, JARVIS E PHYSICIAN SCIENTIST PROGRAM AWARD	07-01-89	06-30-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	479,601
5 K07AG00355-04	CRISTOFALO, VINCENT J GERIATRIC LEADERSHIP ACADEMIC AWARD	07-01-89	06-30-90	UNIVERSITY OF PENNSYLVANIA	86,400
5 K08AG00358-03	MEIER, DIANE E INFLUENCE OF AGE AND RACE ON BONE HEALTH	12-01-88	11-30-89	MOUNT SINAI SCHOOL OF MEDICINE	58,536
5 K07AG00359-03	HAMERMAN, DAVID GERIATRIC LEADERSHIP ACADEMIC AWARD	12-01-88	11-30-89	MONTEFIORE MEDICAL CENTER (BRONX, NY)	86,400

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NATIONAL INSTITUTE ON AGING ACTIVE GRANTS IN FY89

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 K08AG00363-03	LAVIZZO-MOUREY, RISA RISK FACTORS FOR DEHYDRATION AMONG THE ELDERLY	08-01-89	07-31-90	UNIVERSITY OF PENNSYLVANIA	62,640
5 K08AG00367-03	LYLES, KENNETH W GLUCOCORTICOID EFFECTS ON MINERAL HOMEOSTASIS IN AGING	05-01-89	04-30-90	DUKE UNIVERSITY	50,423
5 K07AG00368-03	LUCHI, ROBERT J GERIATRIC LEADERSHIP ACADEMIC AWARD	01-01-89	12-31-89	BAYLOR COLLEGE OF MEDICINE	86,120
5 K04AG00369-03	JOHNSON, THOMAS E MOLECULAR GENETIC ANALYSIS OF THE SPECIFICATION OF AGING	08-01-89	07-31-90	UNIVERSITY OF COLORADO AT BOULDER	50,962
5 K11AG00371-03	DOVE, S BRENT AGING EFFECT ON IMMUNOGENETICS OF SECRETORY IGA RESPONSE	02-01-89	01-31-90	UNIVERSITY OF TEXAS HLTH SCI CTR SAN ANT	69,483
5 P30AG00371-16	COHEN, HARVEY J RESEARCH SUPPORT SERVICES FOR GERONTOLOGY CENTER	04-01-89	03-31-90	DUKE UNIVERSITY	366,001
K04AG00374-03	THOMAN, MARILYN L INTERLEUKIN 2 SYNTHESIS AND ACTIVITY IN THE AGED	05-01-89	04-30-90	SCRIPPS MEMORIAL HOSPITAL-LA JOLLA	52,272
P01AG00378-18	CRISTOFALO, VINCENT J CELLULAR SENESCENCE AND CONTROL OF CELL PROLIFERATION	02-01-89	01-31-90	WISTAR INSTITUTE OF ANATOMY AND BIOLOGY	776,850
K11AG00382-03	LYTTON, WILLIAM CONNECTIONIST MODELING IN THE NEUROLOGY OF AGING	09-01-89	08-31-90	SALK INSTITUTE FOR BIOLOGICAL STUDIES	73,123
K08AG00383-03	BUSBY, MARY J PHYSICAL ACTIVITY & METABOLIC FUNCTION IN OLDER MEN	09-01-89	08-31-90	JOHNS HOPKINS UNIVERSITY	58,565
K07AG00384-03	BRODY, JACOB A GERIATRIC LEADERSHIP ACADEMIC AWARD	08-01-89	07-31-90	UNIVERSITY OF ILLINOIS AT CHICAGO	81,623
K08AG00387-03	MADER, SCOTT L POSTURAL HYPOTENSION, AUTONOMIC FUNCTION AND AGING	08-01-89	07-31-90	CASE WESTERN RESERVE UNIVERSITY	64,368

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 K07AG00389-03	WHISLER, RONALD L GERIATRIC LEADERSHIP ACADEMIC AWARD	09-01-89	08-31-90	OHIO STATE UNIVERSITY	86,400
5 K01AG00390-02	CHEUNG, HOU T NUTRITION, AGING, AND IMMUNITY	01-01-89	12-31-89	ILLINOIS STATE UNIVERSITY	58,600
7 K01AG00391-04	KUMANYIKA, SHIRIKI K CORRELATES AND PREDICTORS OF DIET PATTERNS AFTER AGE 60	09-04-89	08-31-90	PENNSYLVANIA STATE UNIVERSITY PARK	63,512
5 K01AG00394-03	VERBRUGGE, LOIS M ARTHRITIS AND DAILY LIFE	09-01-89	08-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	74,224
5 K11AG00396-03	GROLLMAN, EDWIN M CYTOSKELETAL PROTEINS & TROPHIC FACTORS IN AGING	08-01-89	07-31-90	UNIVERSITY OF ROCHESTER	68,342
5 K01AG00399-02	DUTTA, PURABI EFFECTS OF AGE & RIBOFLAVIN ON B-ADRENERGIC ACTIVITIES	02-01-89	01-31-90	SLOAN-KETTERING INSTITUTE FOR CANCER RES	61,272
5 K07AG00402-03	SEEGMILLER, JARVIS E GERIATRIC LEADERSHIP ACADEMIC AWARD	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	61,275
K07AG00404-02	SCOTT, ROBERT B GERIATRIC LEADERSHIP ACADEMIC AWARD	05-01-89	04-30-90	VIRGINIA COMMONWEALTH UNIVERSITY	86,400
K11AG00406-02	KANG, UN J NEUROTRANSMITTER GENE EXPRESSION IN AGING BRAIN	03-01-89	02-28-90	CORNELL UNIVERSITY MEDICAL CENTER	77,043
K08AG00407-02	BRASHEAR, HARRY R DIAGONAL BAND--ORGANIZATION AND CHANGES IN DEMENTIA	07-01-89	06-30-90	UNIVERSITY OF VIRGINIA CHARLOTTESVILLE	63,936
K08AG00408-02	BIERER, LINDA M CHOLINERGIC/NORADRENERGIC TREATMENT OF ALZHEIMER'S	05-01-89	06-30-90	MOUNT SINAI SCHOOL OF MEDICINE	56,268
K08AG00411-02	TENOVER, JOYCE S NIA ACADEMIC AWARD--ANDROGEN ACTION IN THE ELDERLY MALE	05-01-89	04-30-90	UNIVERSITY OF WASHINGTON	57,672

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 K01AG000412-02	KELLEHER, JOANNE K MATHEMATICAL MODELS OF INTERMEDIARY METABOLISM IN AGING	07-01-89	06-30-90	GEORGE WASHINGTON UNIVERSITY	64,366
5 K07AG000413-02	CREDITOR, MORTON C GERIATRIC LEADERSHIP ACADEMIC AWARD	05-01-89	04-30-90	UNIVERSITY OF KANSAS COL HLTH SCI & HOSP	80,892
5 K04AG000415-02	PERRY, GEORGE AMYLOID PRECURSOR IN ALZHEIMER DISEASE	09-01-89	08-31-90	CASE WESTERN RESERVE UNIVERSITY	54,000
5 K04AG000417-02	HOPKINS, PAUL B ORGANIC AND BIO-ORGANIC CHEMISTRY	07-01-89	06-30-90	UNIVERSITY OF WASHINGTON	51,840
5 K01AG000420-02	BALES, CONNIE W VITAMIN D METABOLISM--FUNCTION OF KIDNEY DONOR/RECIPIENT	09-01-89	08-31-90	DUKE UNIVERSITY	63,698
5 K07AG000421-02	ETTINGER, WALTER H GERIATRIC LEADERSHIP ACADEMIC AWARD	08-01-89	07-31-90	WAKE FOREST UNIVERSITY	83,930
5 K04AG000422-02	BONDADA, SUBBARAO B LYMPHOCYTE ACTIVATION	08-01-89	07-31-90	UNIVERSITY OF KENTUCKY	51,736
5 K04AG000423-02	SEALS, DOUGLAS R HYPERTENSION IN THE ELDERLY--EFFECTS OF EXERCISE	08-01-89	07-31-90	UNIVERSITY OF ARIZONA	50,112
5 R01AG000424-27	WALFORD, ROY NUTRITIONAL AND IMMUNE INFLUENCES ON AGING	05-01-89	04-30-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	238,871
5 K11AG000425-02	DE LA MONTE, SUZANNE M CNS PLASTICITY & ALZHEIMER'S DISEASE--MOLECULAR STUDIES	08-01-89	07-31-90	MASSACHUSETTS GENERAL HOSPITAL	66,588
R37AG000425-25	HOLLOSZY, JOHN O EXERCISE-INDUCED BIOCHEMICAL AND ANATOMIC ADAPTATIONS	07-01-89	06-30-90	WASHINGTON UNIVERSITY	214,054
K08AG000426-02	ADES, PHILIP A EXERCISE CONDITIONING IN OLDER CORONARY PATIENTS	07-01-89	06-30-90	UNIVERSITY OF VERMONT & ST AGRIC COLLEGE	67,608

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	END	INSTITUTION	TOTAL
5 K04AG00427-02	EFFROS, RITA B SENESCENCE IN HUMAN T LYMPHOCYTE CULTURES	09-01-89	08-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	54,000
1 K08AG00428-01	TAFFET, GEORGE E MODULATION OF RELAXATION IN THE SENESCENT HEART	12-01-88	11-30-89	BAYLOR COLLEGE OF MEDICINE	61,557
1 K01AG00429-01A1	MC DONALD, ROGER B AGING, HIGH SUCROSE DIETS AND PANCREATIC FUNCTION	07-01-89	06-30-90	UNIVERSITY OF CALIFORNIA DAVIS	50,887
1 K08AG00430-01A1	TROY, CAROL M CALCIUM AND THE CYTOSKELETON IN ALZHEIMER'S	07-12-89	06-30-90	COLUMBIA UNIVERSITY NEW YORK	65,664
1 K04AG00431-01A1	BURGIO, KATHRYN L BEHAVIORAL VS. DRUG INTERVENTION--URINARY INCONTINENCE	07-01-89	06-30-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	45,106
1 K11AG00432-01	SCHULZ, PAUL E CHOLINERGIC MODULATION OF HIPPOCAMPAL MOSSY FIBER LTP	12-01-88	11-30-89	BAYLOR COLLEGE OF MEDICINE	67,744
1 K08AG00433-01	SUPIANO, MARK A SYMPATHETIC FUNCTION IN THE ELDERLY	12-01-88	02-28-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	58,104
1 K01AG00434-01	GARRARD, JUDITH DISCHARGE OF NURSING HOME ELDERLY TO THE COMMUNITY	12-01-88	11-30-89	UNIVERSITY OF MINNESOTA OF MNPLS-ST PAUL	64,368
5 K04AG00436-02	WEI, JEANNE Y EFFECT OF AGE ON CARDIOVASCULAR REFLEX FUNCTION	08-01-89	07-31-90	BETH ISRAEL HOSP (BOSTON)	51,408
1 K08AG00439-01	EARL, NANCY L GENETIC EPIDEMIOLOGY OF LATE ONSET ALZHEIMER'S DISEASE	05-01-89	04-30-90	DUKE UNIVERSITY	63,072
*1 K01AG00440-01	KING, ABBY C EXERCISE AND STRESS-RELATED RESPONSE IN OLDER ADULTS	07-01-89	06-30-90	STANFORD UNIVERSITY	61,865
K04AG00441-01	GERHARDT, GREG A AGE-INDUCED CHANGES IN MONOAMINE PRESYNAPTIC FUNCTION	04-01-89	03-31-90	UNIVERSITY OF COLORADO HLTH SCIENCES CTR	53,726

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	END	INSTITUTION	TOTAL
1 K04AG00443-01	KEMPER, SUSAN LANGUAGE ACROSS THE LIFE-SPAN	09-11-89	12-31-90	UNIVERSITY OF KANSAS LAWRENCE	31,840
5 R37AG00443-15	SCHIFFMAN, SUSAN S GUSTATORY AND OLFACTORY CHANGES WITH AGE	12-01-88	11-30-89	DUKE UNIVERSITY	174,027
1 K01AG00444-01	YARASHESKI, KEVIN E ANABOLIC EFFECTS OF WEIGHT TRAINING AND GROWTH HORMONE	09-01-89	08-31-90	WASHINGTON UNIVERSITY	48,303
1 K11AG00445-01	HOLTZMAN, DAVID M TRISOMY 16 & NGF--EFFECTS ON CNS GENE EXPRESSION	07-01-89	06-30-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	71,323
1 K08AG00446-01	HULETTE, CHRISTINE M BRAIN REACTIVE AUTOANTIBODIES--ALZHEIMER'S DISEASE	08-01-89	07-31-90	DUKE UNIVERSITY	63,072
1 K04AG00450-01	LAKOSKI, JOAN M AGING AND ESTROGEN ON BIOGENIC AMINE PHYSIOLOGY-RCDA	09-11-89	08-31-90	UNIVERSITY OF TEXAS MEDICAL BRANCH	34,864
1 K08AG00471-01	MANDELBLATT, JEANNE S BREAST AND CERVIX CANCER CONTROL IN THE ELDERLY	07-01-89	06-30-90	MEMORIAL HOSPITAL FOR CANCER & ALLIED DI	58,968
5 P01AG00538-13	COTMAN, CARL W BEHAVIORAL AND NEURAL PLASTICITY IN THE AGED	09-01-89	08-31-90	UNIVERSITY OF CALIFORNIA IRVINE	701,037
5 P01AG00541-13	WEKSLER, MARC E IMMUNOBIOLOGY OF AGING	05-01-89	04-30-90	CORNELL UNIVERSITY MEDICAL CENTER	462,925
5 R01AG00594-16	HARRISON, DAVID E DECLINE OF IMMUNE RESPONSE WITH AGE	07-01-89	06-30-90	JACKSON LABORATORY	183,112
'5 P01AG00599-13	MINAKER, KENNETH L PROGRAM PROJECT IN BIOMEDICAL ASPECTS OF AGING	07-01-89	06-30-90	BETH ISRAEL HOSP (BOSTON)	923,814
5 P01AG00599-13S1	MINAKER, KENNETH L PROGRAM PROJECT IN BIOMEDICAL ASPECTS OF AGING	09-01-89	06-30-90	BETH ISRAEL HOSP (BOSTON)	154,455

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	END	INSTITUTION	TOTAL
2 R01AG00677-12	RUTHERFORD, CHARLES L ALTERNATE PATHWAYS IN CELLULAR AGING	04-01-89	03-31-90	VIRGINIA POLYTECHNIC INST AND ST UNIV	164,020
5 R01AG00783-11	WEIGLE, WILLIAM O EFFECT OF AGING ON IMMUNE STATES	06-01-89	05-31-90	SCRIPPS CLINIC AND RESEARCH FOUNDATION	155,878
5 R01AG00947-12	STEIN, GRETCHEN H GROWTH REGULATION: SENESCENT VS. NONSENESCENT CELLS	06-01-89	05-31-90	UNIVERSITY OF COLORADO AT BOULDER	296,646
2 R01AG01121-10A1	COLEMAN, PAUL D COMPUTER AIDED STUDY OF DENDRITES IN AGING HUMAN BRAIN	04-01-89	03-31-90	UNIVERSITY OF ROCHESTER	151,292
5 R37AG01136-12	YEN, SHU-HUI C AGING BRAIN--IMMUNOHISTOLOGY AND BIOCHEMISTRY	07-01-89	06-30-90	YESHIVA UNIVERSITY	215,715
5 R01AG01159-13	MANTON, KENNETH G DEMOGRAPHIC STUDY OF MULTIPLE CAUSES OF DEATH	12-01-88	11-30-89	DUKE UNIVERSITY	143,239
5 P01AG01188-11	MASORO, EDWARD J NUTRITIONAL PROBE OF THE AGING PROCESS	06-01-89	05-31-90	UNIVERSITY OF TEXAS HLTH SCI CTR SAN ANT	943,639
5 R37AG01228-11	WRIGHT, WOODRING E GENE EXPRESSION IN AGING AND DEVELOPMENT	12-01-88	11-30-89	UNIVERSITY OF TEXAS SW MED CTR/DALLAS	164,202
5 R37AG01274-11	GRACY, ROBERT W MOLECULAR BASIS FOR ABNORMAL PROTEINS IN AGING CELLS	02-01-89	01-31-90	TEXAS COLLEGE OF OSTEOPATHIC MEDICINE	173,78
5 P01AG01312-10	REAVEN, GERALD M ENDOCRINOLOGY OF AGING	07-01-89	06-30-90	STANFORD UNIVERSITY	468,139
5 R01AG01395-11	WILKINSON, GRANT R EFFECTS OF AGING PROCESS ON DRUG RESPONSIVENESS IN MAN	04-01-89	03-31-90	VANDERBILT UNIVERSITY	256,45
5 R37AG01437-09	DAVIDSON, JULIAN M PHARMACOLOGIC FACTORS & SEXUALITY IN AGING HYPERTENSION	07-01-89	06-30-90	STANFORD UNIVERSITY	219,57

ANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R01AG001461-10	SABATINI, DAVID D SYNTHESIS AND DISTRIBUTION OF PROTEINS IN MEMBRANES	02-01-89	01-31-90	NEW YORK UNIVERSITY	450,954
5 R01AG001512-08	LU, JOHN K HORMONE SECRETION AND RECEPTOR PATTERNS DURING AGING	07-01-89	06-30-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	134,850
5 R01AG001548-07	RICHARDSON, ARLAN G EFFECT OF DIETARY RESTRICTION ON GENE EXPRESSION	07-01-89	06-30-90	ILLINOIS STATE UNIVERSITY	183,284
5 R01AG001608-11	PHOENIX, CHARLES H SEXUAL BEHAVIOR AND HORMONES IN AGING	08-01-89	07-31-90	MEDICAL RESEARCH FOUNDATION OF OREGON	169,435
5 R01AG001739-09	BEWLEY, GLENN C GENETIC CONTROL OF CATALASE EXPRESSION IN DROSOPHILA	07-01-89	06-30-90	NORTH CAROLINA STATE UNIVERSITY RALEIGH	115,698
5 P01AG001743-10	KLINMAN, NORMAN R IMMUNOBIOLOGY AND IMMUNOPATHOLOGY OF AGING	02-01-89	01-31-90	SCRIPPS CLINIC AND RESEARCH FOUNDATION	579,156
5 P01AG001751-11	MARTIN, GEORGE M GENE ACTION IN THE PATHOBIOLOGY OF AGING	08-01-89	07-31-90	UNIVERSITY OF WASHINGTON	1,381,027
5 R01AG001760-09	KLAG, MICHAEL J PRECURSORS OF PREMATURE DISEASE AND DEATH	03-01-89	02-28-90	JOHNS HOPKINS UNIVERSITY	225,911
5 R01AG001822-10	SHEARN, ALLEN D MUTATIONAL DISSECTION OF IMAGINAL DISC DEVELOPMENT	12-01-88	11-30-89	JOHNS HOPKINS UNIVERSITY	142,451
5 R01AG002021-09	SIMPKINS, JAMES W CATECHOLAMINES AND REPRODUCTIVE AGING	09-01-89	08-31-90	UNIVERSITY OF FLORIDA	123,617
5 R37AG002049-10	GARRY, PHILIP J PROSPECTIVE STUDY OF NUTRITION IN THE ELDERLY	01-01-89	12-31-89	UNIVERSITY OF NEW MEXICO ALBUQUERQUE	245,055
5 R01AG002085-09	KENSHALO, DANIEL R, SR AGING AND SOMESTHETIC ACUITY	12-01-88	11-30-89	FLORIDA STATE UNIVERSITY	145,254

RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
P01AG02126-09	MAROTTA, CHARLES A MOLECULAR BIOLOGY OF NEURONAL AGING	12-01-88	11-30-89	MC LEAN HOSPITAL (BELMONT, MA)	732,444
R01AG02128-09	FESSLER, JOHN H BASEMENT MEMBRANE BIOSYNTHESIS	05-18-89	04-30-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	256,833
P01AG02132-09	PRUSINER, STANLEY B VIRAL DEGENERATIVE AND DEMENTING DISEASES IN AGING	01-01-89	12-31-89	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	1,103,986
5 R01AG02152-08	STUTMAN, OSIAS T-CELL DEVELOPMENT AND AGING	12-01-88	11-30-89	SLOAN-KETTERING INSTITUTE FOR CANCER RES	170,952
5 R01AG02163-09	MADDEN, DAVID J AGE AND SELECTIVE ATTENTION IN VISUAL SEARCH	04-01-89	03-31-90	DUKE UNIVERSITY	96,806
5 R01AG02205-10	MALEMUD, CHARLES J BEHAVIOR OF HUMAN CARTILAGE IN AGING AND OSTEOARTHRITIS	06-01-89	05-31-90	CASE WESTERN RESERVE UNIVERSITY	167,534
2 P01AG02219-09A1	DAVIS, KENNETH L CHOLINERGIC TREATMENT OF MEMORY DEFICITS IN THE AGED	04-01-89	03-31-90	MOUNT SINAI SCHOOL OF MEDICINE	720,245
5 R37AG02224-10	WISE, PHYLLIS M NEUROENDOCRINE AND NEUROCHEMICAL FUNCTION DURING AGING	07-01-89	06-30-90	UNIVERSITY OF MARYLAND BALT PROF SCHOOL	207,544
2 R01AG02246-10	TEMPLETON, ALAN R AGING EFFECTS ASSOCIATED WITH A POLYGENIC COMPLEX	04-01-89	03-31-90	WASHINGTON UNIVERSITY	96,964
5 R01AG02287-09	BOSSE, RAYMOND THE EFFECT OF RETIREMENT ON PHYSICAL HEALTH	05-01-89	04-30-90	HELLENIC COLLEGE	112,107
5 R01AG02325-08	LEES, SIDNEY MECHANO-ULTRASONIC PROPERTIES OF BONE IN AGING	12-01-88	11-30-89	FORSYTH DENTAL CENTER	190,897
5 R01AG02329-13	YUNIS, EDMOND J IMMUNOLOGICAL ASPECTS OF AGING	04-01-89	03-31-90	DANA-FARBER CANCER INSTITUTE	110,54

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RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	END	INSTITUTION	TOTAL
R01AG02331-09	CLEMMONS, DAVID R CONTROL OF FIBROBLAST REPLICATION BY IGF-I	08-01-89	07-31-90	UNIVERSITY OF NORTH CAROLINA CHAPEL HILL	191,102
R01AG02338-07A1	O'LEARY, JAMES J MECHANISMS OF DEPRESSED IMMUNE FUNCTION IN AGING MAN	04-01-89	03-31-90	UNIVERSITY OF MINNESOTA OF MNPLS-ST PAUL	154,270
R01AG02440-09	WARNER, CAROL M LYMPHOCYTE AGING	09-01-89	08-31-90	NORTHEASTERN UNIVERSITY	139,576
R37AG02452-10	LIGHT, LEAH L CONTEXTUAL AND SEMANTIC MEMORY PROCESSING IN OLD AGE	09-01-89	08-31-90	PITZER COLLEGE	121,220
R01AG02467-08	KUSHNER, IRVING INDUCTION OF ACUTE PHASE PROTEIN BIOSYNTHESIS	03-01-89	02-28-90	CASE WESTERN RESERVE UNIVERSITY	139,479
5 R37AG02577-07	NIMNI, MARCEL E OSTEOGENESIS: DEVELOPMENT, MODULATION, AND AGING	12-01-88	11-30-89	UNIVERSITY OF SOUTHERN CALIFORNIA	135,130
5 R01AG02711-11	KRIPKE, DANIEL F PREVALENCE OF SLEEP APNEA IN AN AGED POPULATION	04-01-89	03-31-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	169,787
5 R01AG02716-08	BONA, CONSTANTIN A AUTOANTI-IMMUNOGLOBULIN RESPONSE AND AGING	03-01-89	02-28-90	MOUNT SINAI SCHOOL OF MEDICINE	120,341
5 R37AG02751-08	HOWARD, DARLENE V STUDIES OF AGING, SEMANTIC PROCESSING, AND MEMORY	05-01-89	04-30-90	GEORGETOWN UNIVERSITY	61,341
5 R01AG02767-06	HOLLANDER, DANIEL NUTRIENT LIPID ABSORPTION AND AGING	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA IRVINE	156,526
5 R01AG02802-08	MAYEUX, RICHARD P BEHAVIORAL/BIOCHEMICAL CORRELATES IN DISEASES OF AGING	07-01-89	06-30-90	COLUMBIA UNIVERSITY NEW YORK	168,890
2 R01AG02822-09	STOCKDALE, FRANK E DEVELOPMENTAL AGE AND CHANGES IN MYOSIN ISOZYMES	04-01-89	03-31-90	STANFORD UNIVERSITY	236,698

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R01AG002832-08	STROHMAN, RICHARD C MUSCLE MATURATION: GROWTH FACTORS AND AGING	12-01-88	11-30-89	UNIVERSITY OF CALIFORNIA BERKELEY	135,820
P01AG002908-09	LEHMAN, I ROBERT DNA TRANSACTIONS AND AGING	08-01-89	07-31-90	STANFORD UNIVERSITY	1,011,014
P01AG002921-08	CAPLAN, ARNOLD I EXTRACELLULAR MATRIX AND AGING	08-01-89	07-31-90	CASE WESTERN RESERVE UNIVERSITY	769,039
R01AG003051-06	REISBERG, BARRY AGING AND DEMENTIA: LONGITUDINAL COURSE OF SUBGROUPS	07-14-89	06-30-90	NEW YORK UNIVERSITY	277,638
R01AG003055-08	ELIAS, MERRILL F AGE, HYPERTENSION, AND INTELLECTIVE PERFORMANCE	04-21-89	03-31-90	UNIVERSITY OF MAINE	228,708
P01AG003104-08	EGER, EDMOND I AGING AND ANESTHESIA	03-01-89	02-28-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	479,729
P01AG003106-07	MANUELIDIS, LAURA ANIMAL MODELS FOR THE STUDY OF DEMENTIAS AND AGING	12-01-88	11-30-89	YALE UNIVERSITY	610,335
5 P01AG003110-07	FRY, CHRISTINE L AGE AND CULTURE: COMMUNITY AND WELL-BEING IN OLD AGE	09-01-89	08-31-90	LOYOLA UNIVERSITY OF CHICAGO	62,514
5 R37AG003188-08	WOODBURY, MAX A LONGITUDINAL MODELS OF CORRELATES OF AGING AND LONGEVITY	06-01-89	05-31-90	DUKE UNIVERSITY	116,22
5 R01AG003359-08	PRICE, DONALD L NEUROBIOLOGICAL STUDIES/ALZHEIMER'S/PARKINSON'S DISEASE	09-01-89	08-31-90	JOHNS HOPKINS UNIVERSITY	110,21
5 R01AG003376-08	BARNES, CAROL A NEUROBEHAVIORAL RELATIONS IN SENESCENT HIPPOCAMPUS	05-01-89	04-30-90	UNIVERSITY OF COLORADO AT BOULDER	195,90
5 R01AG003382-06	EBERSOLE, JEFFREY L EFFECT OF AGING ON SECRETORY IGA IMMUNE SYSTEM	09-01-89	08-31-90	UNIVERSITY OF TEXAS HLTH SCI CTR SAN ANT	128,30

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG03393-08	ALLEN, RONALD E CHANGES IN SKELETAL MUSCLE SATELLITE CELLS DURING AGING	05-01-89	04-30-90	UNIVERSITY OF ARIZONA	83,582
5 R01AG03417-09	FERNANDES, GABRIEL INFLUENCE OF DIET ON REGULATION, AUTOIMMUNITY, AND AGING	07-01-89	06-30-90	UNIVERSITY OF TEXAS HLTH SCI CTR SAN ANT	156,176
R01AG03471-05S1	MITTENESS, LINDA S THE BEHAVIORAL CONTEXT OF INCONTINENCE IN THE ELDERLY	05-01-89	06-30-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	59,896
R01AG03484-05	MATTHEWS, SARAH H DIVIDING FILIAL RESPONSIBILITY IN ADULT SIBLING GROUPS	07-01-89	06-30-90	CASE WESTERN RESERVE UNIVERSITY	55,876
R01AG03501-08	LEVENTHAL, HOWARD SYMPTOM AND EMOTION STIMULI TO HEALTH ACTION IN ELDERLY	03-01-89	05-31-90	RUTGERS THE STATE UNIV NEW BRUNSWICK	177,290
R01AG03527-08	CHATTERJEE, BANDANA AGE & HORMONE DEPENDENT REGULATION OF HEPATIC PROTEIN	08-01-89	07-31-90	UNIVERSITY OF TEXAS HLTH SCI CTR SAN ANT	130,687
R01AG03578-06	CHEN, KUANG Y POLYAMINES AND CELLULAR AGING	07-01-89	06-30-90	RUTGERS THE STATE UNIV NEW BRUNSWICK	106,590
P01AG03644-05	HAMILL, ROBERT W NEUROPLASTICITY IN AGING AND DEMENTIA	01-01-89	12-31-89	UNIVERSITY OF ROCHESTER	822,457
5 R01AG03763-05	WHISLER, RONALD L CELLULAR MECHANISMS OF HUMAN IMMUNOSENESENCE	03-01-89	02-28-90	OHIO STATE UNIVERSITY	125,620
5 R01AG03824-05	HIBBARD, JUDITH H FEMALE EMPLOYMENT PATTERNS, LIFE STAGE AND HEALTH STATUS	03-01-89	02-28-90	KAISER FOUNDATION RESEARCH INSTITUTE	86,118
5 P01AG03853-07	BLASS, JOHN P GERIATRIC DEMENTIA RESEARCH CLINIC	06-01-89	05-31-90	BURKE REHABILITATION CTR (WHITE PLNS,NY)	494,060
5 R01AG03884-08	WRIGHT, BARBARA E COMPUTER ANALYSIS OF AGING IN DICTYOSTELIUM	12-01-88	11-30-89	UNIVERSITY OF MONTANA	199,091

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	BUDGET DATES END	INSTITUTION	TOTAL
5 P01AG03934-08	KAYE, DONALD TEACHING NURSING HOME	09-01-89	08-31-90	PHILADELPHIA GERIATRIC CTR-FRIEDMAN HOSP	1,429,48
5 P01AG03949-08	WOLFSON, LESLIE I TEACHING NURSING HOME	09-07-89	08-31-90	YESHIVA UNIVERSITY	1,003,21
5 P01AG03975-05	TOBIS, JEROME S INTERVENTION EFFECTS--PSYCHOBIOLOGICAL DECLINE IN AGING	02-01-89	01-31-90	UNIVERSITY OF CALIFORNIA IRVINE	799,314
5 R01AG03978-08	MILLER, RICHARD A AGING EFFECTS ON IL-2 SECRETING HELPER T CELLS	08-01-89	07-31-90	BOSTON UNIVERSITY	179,941
P01AG03991-06A1	BERG, LEONARD HEALTHY AGING AND SENILE DEMENTIA	01-01-89	12-31-89	WASHINGTON UNIVERSITY	1,180,22
R01AG04053-05	KAUFMAN, SHARON R CHRONICITY AND LIFE REORGANIZATION IN OLD AGE	05-01-89	04-30-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	130,44
R01AG04058-05	WERNER, JOHN S OPTICAL AND NEURAL CHANGES IN THE AGING VISUAL SYSTEM	03-01-89	02-28-90	UNIVERSITY OF COLORADO AT BOULDER	79,866
R01AG04100-07	KIPPS, THOMAS J BONE MARROW IN IMMUNOLOGIC AGING AND AUTOIMMUNITY	07-01-89	06-30-90	SCRIPPS CLINIC AND RESEARCH FOUNDATION	106,466
5 R01AG04114-06	ZELINSKI, ELIZABETH M ADULT AGE DIFFERENCES IN ONLINE READING COMPREHENSION	12-01-88	11-30-90	UNIVERSITY OF SOUTHERN CALIFORNIA	110,827
5 R01AG04145-07	YEN, SHU-HUI C AGING AND ALZHEIMER DEMENTIA: ROLE OF FIBROUS PROTEIN	05-01-89	04-30-90	YESHIVA UNIVERSITY	187,81
5 R01AG04146-06	BOOTH, ALAN MARITAL INSTABILITY OVER THE LIFE COURSE	06-01-89	05-31-90	UNIVERSITY OF NEBRASKA LINCOLN	63,75
5 R01AG04171-09	GIBSON, GARY E CALCIUM, NEUROTRANSMITTER AND ENERGY METABOLISM WITH AGE	04-01-89	03-31-90	BURKE REHABILITATION CTR (WHITE PLNS,NY)	110,19

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	 END	INSTITUTION	TOTAL
5 R01AG004180-06	KOHLER, HEINZ IDIOTYPE RECOGNIZING T-HELPER CELLS	05-01-89	04-30-90	IDEC PHARMACEUTICALS CORPORATION	135,734
5 R01AG004212-07	OWSLEY, CYNTHIA SPATIAL VISION AND AGING UNDERLYING NEURAL MECHANISMS	07-01-89	06-30-90	UNIVERSITY OF ALABAMA AT BIRMINGHAM	105,180
5 P01AG004220-06	WISNIEWSKI, HENRYK M AGING AND SENILE DEMENTIA OF THE ALZHEIMER TYPE	07-01-89	06-30-90	INSTITUTE FOR BASIC RES IN DEV DISABIL	243,544
3 P01AG004220-06S1	WISNIEWSKI, HENRYK M AGING AND SENILE DEMENTIA OF THE ALZHEIMER TYPE	07-01-89	06-30-90	INSTITUTE FOR BASIC RES IN DEV DISABIL	88,530
5 R37AG004287-07	STEVENS, JOSEPH C CHEMICAL SENSES AND AGING	09-01-89	08-31-90	JOHN B. PIERCE FOUNDATION LAB, INC.	175,266
R01AG004306-04A1	HASHER, LYNN A AGING, INHIBITION, & THE CONTENTS OF WORKING MEMORY	04-01-89	03-31-90	DUKE UNIVERSITY	133,624
R37AG004307-07	CHASE, MICHAEL H STATE-DEPENDENT SOMATOMOTOR PROCESSES	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	238,100
R01AG004321-07	MOSS, MARK B BASAL FOREBRAIN AND LIMBIC SYSTEM IN AGE-RELATED DISEASE	07-01-89	06-30-90	BOSTON UNIVERSITY	228,102
P01AG004342-07	OLDSTONE, MICHAEL B VIROLOGY AND IMMUNOLOGY OF AGING	08-01-89	07-31-90	SCRIPPS CLINIC AND RESEARCH FOUNDATION	845,558
R37AG004344-06	PORTER, JOHN C AGING AND MOLECULAR NEUROENDOCRINE IMPAIRMENT	02-01-89	01-31-90	UNIVERSITY OF TEXAS SW MED CTR/DALLAS	145,399
R01AG004360-07	FARR, ANDREW G AGE DEPENDENT MODULATION OF T-CELL FUNCTION	07-01-89	06-30-90	UNIVERSITY OF WASHINGTON	163,470
P01AG004390-06	LIPSITZ, LEWIS A HRCA/HARVARD RESEARCH NURSING HOME	01-01-89	11-30-89	HEBREW REHABILITATION CENTER FOR AGED	1,041,034

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	 END	INSTITUTION	TOTAL
5 P01AG04391-07	FORD, AMASA B TEACHING NURSING HOME AWARD	09-01-89	08-31-90	CASE WESTERN RESERVE UNIVERSITY	813,47
5 P01AG04393-05	WARREN, JOHN W COMPLICATIONS OF LONG-TERM URINARY CATHETERS IN AGED	12-01-88	11-30-89	UNIVERSITY OF MARYLAND BALT PROF SCHOOL	730,04
5 P01AG04402-07	GOLDBERG, ANDREW P ACADEMIC NURSING HOME	09-01-89	08-31-90	JOHNS HOPKINS UNIVERSITY	816,47
5 P01AG04418-06	HOFFER, BARRY J PHARMACOLOGICAL SUBSTRATES IN AGING	03-01-89	02-28-90	UNIVERSITY OF COLORADO HLTH SCIENCES CTR	535,30
5 P01AG04458-05	REAVEN, GERALD M MULTIDISCIPLINARY STUDY OF GERIATRIC CHRONIC HEALTH CARE	03-01-89	02-28-90	STANFORD UNIVERSITY	602,08
5 R37AG04517-06	WINGFIELD, ARTHUR AGE AND DECISION STRATEGIES IN RUNNING MEMORY FOR SPEECH	04-01-89	03-31-90	BRANDEIS UNIVERSITY	96,74
5 R01AG04518-06	HUI, SIU LUI LONGITUDINAL STUDIES OF BONE LOSS IN AGING	02-01-89	01-31-90	INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS	50,67
5 R01AG04542-06	LANDFIELD, PHILIP W HIPPOCAMPAL SYNAPTIC STRUCTURE-PHYSIOLOGY DURING AGING	05-01-89	04-30-90	WAKE FOREST UNIVERSITY	87,63
5 R01AG04545-06	MAN, EUGENE H IMPLICATIONS OF D-ASPARTATE IN AGING BRAIN	07-01-89	06-30-90	UNIVERSITY OF MIAMI	121,06
2 R01AG04581-03	BASHORE, THEODORE R, JR AGE, PHYSICAL FITNESS, AND INFORMATION PROCESSING SPEED	12-01-88	11-30-89	MEDICAL COLLEGE OF PENNSYLVANIA	137,43
2 P30AG04590-05	CLUBB, JEROME M FACTORS IN AGING: CONTINUED DEVELOPMENT OF RESEARCH RESG	12-01-88	11-30-89	UNIVERSITY OF MICHIGAN AT ANN ARBOR	466,00
3 P30AG04590-05S1	CLUBB, JEROME M NATIONAL ARCHIVE OF COMPUTERIZED DATA ON AGING	08-01-89	11-30-89	UNIVERSITY OF MICHIGAN AT ANN ARBOR	67,20

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG004594-06	STANSKI, DONALD R IV ANESTHETIC DISPOSITION IN THE AGED HEMODYNAMIC STATE	04-01-89	03-31-90	STANFORD UNIVERSITY	192,791
5 P01AG004673-05	MC KINLAY, SONJA M HEALTH AND EFFECTIVE FUNCTIONING IN THE NORMALLY AGING	09-01-89	08-31-90	AMERICAN INSTITUTES FOR RESEARCH	647,805
5 P01AG004727-08	GALLOP, PAUL M AGING CELLS AND TISSUES	05-01-89	04-30-90	CHILDREN'S HOSPITAL (BOSTON)	494,042
5 R01AG004736-06	THONAR, EUGENE J AGE-RELATED DIFFERENCES IN CARTILAGE PROTEOGLYCANS	04-01-89	03-31-90	RUSH-PRESBYTERIAN-ST LUKES MEDICAL CTR	133,143
5 R01AG004755-03	FAHIM, MOHAMED A NEUROMUSCULAR PLASTICITY DURING AGING	08-01-89	07-31-90	UNIVERSITY OF SOUTHERN CALIFORNIA	74,159
5 R37AG004791-06	NEBES, ROBERT D SEMANTIC MEMORY IN ALZHEIMER'S DISEASE	04-01-89	03-31-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	89,964
5 R01AG004804-05	FIFKOVA, EVA ACTIN FILAMENTS AND CALCIUM IN NEURONS	07-01-89	06-30-90	UNIVERSITY OF COLORADO AT BOULDER	132,189
5 R37AG004810-06	LU, JOHN K HORMONE SECRETION AND PREGNANCY DURING AGING	04-01-89	03-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	119,716
5 R01AG004818-09	MEHLHORN, ROLF J ASYMMETRY OF THE INNER MITOCHONDRIAL MEMBRANE	09-01-89	08-31-90	UNIVERSITY OF CALIF-LAWRENC BERKELEY LAB	164,791
R01AG004821-07	OZER, HARVEY L IMMORTALIZATION OF SV40-TRANSFORMED HUMAN CELLS	09-01-89	08-31-90	UNIVERSITY OF MEDICINE & DENTISTRY OF NJ	279,467
P01AG004860-06	THORBECKE, GEERTRUIDA J EFFECT OF AGING ON THE IMMUNE RESPONSE	08-01-89	07-31-90	NEW YORK UNIVERSITY	713,504
P01AG004861-04	LEVINE, ELLIOT M STUDIES OF HUMAN ENDOTHELIAL CELLS OF DIVERSE ORIGIN	12-01-88	11-30-89	WISTAR INSTITUTE OF ANATOMY AND BIOLOGY	661,939

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RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
P01AG04875-06	RIGGS, BYRON L PHYSIOLOGY OF BONE METABOLISM IN AN AGING POPULATION	09-01-89	08-31-90	MAYO FOUNDATION	959,175
R01AG04884-06	SHAPIRO, EUGENE D CLINICAL EFFICACY OF PNEUMOCOCCAL VACCINE IN THE ELDERLY	09-01-89	08-31-90	YALE UNIVERSITY	180,455
R01AG04895-04	ECKERT, J KEVIN CAREGIVERS TO AT-RISK ELDERLY BOARD/CARE HOME RESIDENTS	04-01-89	03-31-90	UNIVERSITY OF MARYLAND BALT CO CAMPUS	229,197
R01AG04924-04	ZAUTRA, ALEX J LIFE EVENTS AND DEMORALIZATION IN THE ELDERLY	07-01-89	06-30-90	ARIZONA STATE UNIVERSITY	93,893
R01AG04932-05	SMITH, JAMES C THE AGE-RELATED EFFECT OF THE SWEET TASTE IN THE RAT	04-01-89	03-31-90	FLORIDA STATE UNIVERSITY	80,300
P01AG04948-04	MC CLEARN, GERALD E MULTIPLE BIOMARKERS OF AGING--GENETIC MODEL	08-01-89	07-31-90	PENNSYLVANIA STATE UNIVERSITY PARK	427,814
P01AG04953-06	ALBERT, MARILYN S AGE-RELATED CHANGES OF COGNITION IN HEALTH & DISEASE	08-01-89	07-31-90	MASSACHUSETTS GENERAL HOSPITAL	671,984
R01AG04954-06	EAVES, LINDON J GENETIC MODELS OF DEVELOPMENT AND AGING	07-01-89	06-30-90	VIRGINIA COMMONWEALTH UNIVERSITY	149,858
R01AG04969-06	SATARIANO, WILLIAM A HEALTH AND FUNCTIONING IN OLDER WOMEN WITH BREAST CANCER	07-06-89	06-30-90	MICHIGAN CANCER FOUNDATION	122,136
R01AG04970-02	NORMAN, ERIC J EARLY URINE B12 DEFICIENCY DETECTION IN ELDERLY	04-01-89	03-31-90	UNIVERSITY OF CINCINNATI	149,371
R01AG04980-28S1	THORBECKE, GEERTRUIDA J LYMPHOID CELLS PRODUCTION OF ANTIBODIES	04-01-89	06-30-90	NEW YORK UNIVERSITY	68,054
R01AG04984-04A1	RIKANS, LORA E INFLUENCE OF AGING ON HEPATOXICITY	09-30-89	08-31-90	UNIVERSITY OF OKLAHOMA HLTH SCIENCES CTR	89,329

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG05107-06	CRIMMINS, EILEEN M IMPROVEMENT IN MORTALITY AND BETTER HEALTH	08-01-89	07-31-90	UNIVERSITY OF SOUTHERN CALIFORNIA	104,53
2 R01AG05110-04A1	MADDEN, DAVID J ADULT AGE DIFFERENCES IN COMPONENT PROCESSES OF READING	12-01-88	11-30-89	DUKE UNIVERSITY	136,59
2 P01AG05119-05	MARKESBERY, WILLIAM R BIOCHEMICAL, MORPHOLOGICAL, AND TRACE ELEMENT STUDIES	05-01-89	04-30-90	UNIVERSITY OF KENTUCKY	517,97
5 P50AG05128-05	ROSES, ALLEN D ALZHEIMER DISEASE RESEARCH CENTER	05-03-89	04-30-90	DUKE UNIVERSITY	1,199,36
3 P50AG05128-05S1	ROSES, ALLEN D ALZHEIMER'S DISEASE RESEARCH CENTER	07-01-89	04-30-90	DUKE UNIVERSITY	218,32
3 P50AG05128-05S2	ROSES, ALLEN D ALZHEIMER'S DISEASE RESEARCH CENTER	09-29-89	04-30-90	DUKE UNIVERSITY	588,64
2 P50AG05131-06	KATZMAN, ROBERT ALZHEIMER'S DISEASE RESEARCH CENTER	07-05-89	06-30-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	1,876,27
5 P50AG05133-05	PETTEGREW, JAY W ALZHEIMER DISEASE RESEARCH CENTER	05-03-89	04-30-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	1,612,97
2 P50AG05134-06	GROWDON, JOHN H ALZHEIMER'S DISEASE RESEARCH CENTER	07-01-89	06-30-90	HARVARD UNIVERSITY	1,326,85
3 P50AG05134-06S1	GROWDON, JOHN H ALZHEIMER'S DISEASE RESEARCH CENTER	09-29-89	06-30-90	HARVARD UNIVERSITY	86,35
5 P50AG05136-05	MARTIN, GEORGE M ALZHEIMER DISEASE RESEARCH CENTER	05-03-89	04-30-90	UNIVERSITY OF WASHINGTON	1,646,16
2 P50AG05138-06	DAVIS, KENNETH L ALZHEIMER'S DISEASE RESEARCH CENTER	07-01-89	06-30-90	MOUNT SINAI SCHOOL OF MEDICINE	1,046,32

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ANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
P50AG05142-06	FINCH, CALEB E ALZHEIMER'S DISEASE RESEARCH CENTER	07-01-89	06-30-90	UNIVERSITY OF SOUTHERN CALIFORNIA	1,670,420
P50AG05144-05	MARKESBERY, WILLIAM R ALZHEIMER DISEASE RESEARCH CENTER	05-03-89	04-30-90	UNIVERSITY OF KENTUCKY	520,438
P50AG05146-06	PRICE, DONALD L AGING AND ALZHEIMER'S DISEASE--CLINICAL & BASIC RESEARCH	07-01-89	09-28-89	JOHNS HOPKINS UNIVERSITY	268,529
P50AG05146-07	PRICE, DONALD L AGING, ALZHEIMER'S DISEASE, AND DOWN'S SYNDROME	09-29-89	06-30-90	JOHNS HOPKINS UNIVERSITY	1,687,476
U01AG05170-05S1	FANTL, JOHN A BEHAVIORAL THERAPY FOR URINARY INCONTINENCE IN FEMALES	09-01-89	08-31-90	VIRGINIA COMMONWEALTH UNIVERSITY	47,008
R01AG05188-01A3	BARKER, WILLIAM H MORTALITY DECLINE AMONG THE AGED--EXPLANATORY FACTORS	07-01-89	06-30-90	KAISER FOUNDATION RESEARCH INSTITUTE	309,004
R01AG05213-04	FRIEDMAN, DAVID EFFECTS OF AGING ON COGNITIVE ERPD/CARDIAC WAVE EFFECT	05-01-89	04-30-90	NEW YORK STATE PSYCHIATRIC INSTITUTE	153,446
R01AG05214-05	ELLIS, JOHN RESPONSES OF SUBPOPULATIONS OF MUSCARINIC RECEPTORS	07-01-89	06-30-90	UNIVERSITY OF VERMONT & ST AGRIC COLLEGE	125,627
5 R01AG05219-03	KUMAR, MAHENDRA ALZHEIMER DISEASE & AGING--BRAIN REACTIVE ANTIBODIES	08-01-89	07-31-90	UNIVERSITY OF MIAMI	95,586
2 R01AG05223-04A1	WARREN, WILLIAM H, JR VISUAL CONTROL OF LOCOMOTION	09-01-89	08-31-90	BROWN UNIVERSITY	252,993
5 R01AG05233-02	FREEDMAN, ROBERT R BEHAVIORAL TREATMENT OF MENOPAUSAL HOT FLASHES	04-01-89	03-31-90	WAYNE STATE UNIVERSITY	118,976
5 U01AG05270-05	SCHNELLE, JOHN F BEHAVIOR MANAGEMENT OF URINARY INCONTINENCE	03-01-89	02-28-90	MIDDLE TENNESSEE STATE UNIVERSITY	232,991

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ANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R37AG005284-04	DAVIS, MARADEE A LIVING ARRANGEMENTS, DIET & SURVIVAL OF OLDER US ADULTS	02-02-89	01-31-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	137,160
R01AG005324-05	REISER, KAREN M AGE-ASSOCIATED CHANGES IN COLLAGEN	05-01-89	04-30-90	UNIVERSITY OF CALIFORNIA DAVIS	108,434
R01AG005333-05	PEREIRA-SMITH, OLIVIA M MOLECULAR AND CYTOGENETIC STUDIES OF HUMAN CELL AGING	05-01-89	04-30-90	BAYLOR COLLEGE OF MEDICINE	170,652
R01AG005344-06	ARMSTRONG, DAVID M CENTRAL CHOLINERGIC NEUROANATOMY IN RATS	08-01-89	07-31-90	GEORGETOWN UNIVERSITY	144,362
U09AG005389-05	SIMPKINS, JAMES W SCIENTIFIC REVIEW AND EVALUATION AWARD	07-01-89	06-30-90	U.S. PHS PUBLIC ADVISORY GROUPS	550,395
5 R01AG005394-04	GRIMM, RICHARD H, JR RISK FACTORS FOR HIP AND COLLES' FRACTURES	02-01-89	01-31-90	UNIVERSITY OF MINNESOTA OF MNPLS-ST PAUL	292,822
5 R01AG005407-04	CUMMINGS, STEVEN R RISK FACTORS FOR HIP AND COLLES' FRACTURES	02-10-89	01-31-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	683,637
5 F32AG005419-03	RICE, DANIEL M AGING AND EVENT-RELATED POTENTIALS	06-15-89	06-14-90	UNIVERSITY OF CALIFORNIA IRVINE	29,250
5 F32AG005422-02	KRISHNAN, ARUNA EFFECT OF AGE & HORMONES ON STEROID BINDING & ACTION	06-01-89	05-31-90	STANFORD UNIVERSITY	31,750
5 F32AG005426-02	ROGERS, PATRICIA A ALTERNATE PATHWAYS IN CELLULAR AGING	06-01-89	05-30-90	VIRGINIA POLYTECHNIC INST AND ST UNIV	21,000
2 R01AG005433-04	PROHOVNIK, ISAK A REGIONAL CEREBRAL BLOOD FLOW IN ALZHEIMER'S DISEASE	05-01-89	04-30-90	NEW YORK STATE PSYCHIATRIC INSTITUTE	231,443
5 F32AG005442-03	SILLIKER, MARGARET E MOLECULAR ANALYSIS OF LONGEVITY MUTANTS IN PODOSPORA	09-01-89	08-31-90	UNIVERSITY OF COLORADO HLTH SCIENCES CTR	28,000

RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
F32AG05443-02	KLUNK, WILLIAM E MOLECULAR PROBES FOR ALZHEIMER BETA-AMYLOID PROTEIN	07-01-89	06-30-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	31,750
F32AG05444-02	ROMANIK, ELIZABETH A METABOLISM AND METHYLATION OF AGE-DAMAGED PROTEINS	05-01-89	04-30-90	WORCESTER FOUNDATION FOR EXPER BIOLOGY	28,000
5 R01AG05444-04	SCHULZ, RICHARD COPING WITH DEMENTIA--MULTIVARIATE CAUSAL MODELS	02-01-89	12-31-89	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	125,969
5 F32AG05446-02	DECKER, MICHAEL W CHOLINERGIC/NORADRENERGIC INTERACTION IN MEMORY	03-01-89	10-07-89	UNIVERSITY OF CALIFORNIA IRVINE	10,102
5 F32AG05447-02	SCHEER, JESSICA AGING WITH A DISABILITY: THE LATE EFFECTS OF POLIO	07-01-89	12-31-89	NATIONAL REHABILITATION HOSP (WASH, DC)	14,000
5 F32AG05448-02	MILLER, CLARENCE D MUTATION, DNA REPAIR AND FIBROBLAST DONOR AGE	03-01-89	02-28-90	U.S. GERONTOLOGY RESEARCH CENTER	33,500
5 F32AG05449-02	SWIFT, ARLETTE B BIOLOGICAL CORRLATES OF MENTAL IMAGERY	03-16-89	03-15-90	HARVARD UNIVERSITY	28,000
5 F32AG05455-02	GEULA, CHANGIZ CORTICAL CHOLINERGIC FIBERS IN AGING AND ALZHEIMERS'S AG	08-01-89	07-31-90	BETH ISRAEL HOSP (BOSTON)	31,750
5 F32AG05456-02	SZOT, PATRICIA ONTOGENY OF THE CNS VASOPRESSIN RECEPTOR	06-15-89	06-14-90	UNIVERSITY OF WASHINGTON	28,000
5 R44AG05462-03	BAKER, CHARLES D URINARY BLADDER CONTINENCE DEVICE	08-01-89	07-31-90	TECHNICAL RESEARCH ASSOCIATES, INC.	197,903
5 F32AG05466-02	LARSEN, ULLA M APPLICATION OF STATISTICAL METHODS IN AGING RESEARCH	06-15-89	06-14-90	UNIVERSITY OF CALIFORNIA BERKELEY	30,500
5 F33AG05468-02	WEINBERGER, MORRIS COST-BENEFIT OF EASING BURDEN OF ALZHEIMERS CAREGIVERS	09-01-89	02-28-90	DUKE UNIVERSITY	17,25

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ANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
F33AG05469-02	HANSER, SUZANNE B CAREGIVERS OF ALZHEIMERS PATIENTS: MUSIC THERAPY	09-06-89	09-05-90	STANFORD UNIVERSITY	34,500
F32AG05477-02	SCHAUERTE, JOSEPH A AGE RELATED EFFECTS IN RAT PHOSPHOGLYCERATE MUTAGE	09-15-89	05-14-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	19,667
F32AG05479-01	MARTIN, JOEL H NEURON SPECIFIC GENES IN AGING AND ALZHEIMERS DISEASE	09-01-89	08-31-90	UNIVERSITY OF SOUTHERN CALIFORNIA	21,000
F32AG05481-01	POULAKOS, JENNIFER J AGING AND CHOLINERGIC ACTIONS ON NEUROPEPTIDE Y TURNOVER	09-05-89	09-04-90	UNIVERSITY OF FLORIDA	29,250
F32AG05486-01	TUN, PATRICIA A ATTENTIONAL RESOURCES AND LANGUAGE PROCESSING IN AGING	08-21-89	08-20-90	BRANDEIS UNIVERSITY	29,250
1 F32AG05488-01	EPPERSON, JAMES R A GENERAL TOTAL SYNTHESIS OF D,L-PHYSOSTIGMINE	08-14-89	08-13-90	UNIVERSITY OF CALIFORNIA BERKELEY	20,000
1 F32AG05489-01	SHIGENAGA, MARK K ROLE OF OXIDATIVE DNA DAMAGE IN AGING AND CANCER	09-16-89	06-15-90	UNIVERSITY OF CALIFORNIA BERKELEY	15,750
1 F32AG05492-01	YANNARIELLO-BROWN, JUDITH I HYALURONATE RECEPTOR: ISOLATION AND AGING STUDIES	09-01-89	08-31-90	UNIVERSITY OF TEXAS MEDICAL BRANCH	28,000
1 F32AG05500-01	SHORS, TRACEY J AGING, STRESS & LONG-TERM POTENTIATION	09-01-89	07-31-90	UNIVERSITY OF SOUTHERN CALIFORNIA	25,917
1 F33AG05505-01	LINDAUER, MARTIN S CREATIVITY AND OLD AGE	09-01-89	08-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	34,500
5 R01AG05552-04	HESS, THOMAS M SCHEMATIC KNOWLEDGE INFLUENCES ON MEMORY IN ADULTHOOD	07-01-89	06-30-90	NORTH CAROLINA STATE UNIVERSITY RALEIGH	69,277
5 P01AG05554-05	SEIFTER, SAM STRUCTURE AND FUNCTION IN DEVELOPING AND AGING HEARTS	09-02-89	08-31-90	YESHIVA UNIVERSITY	836,645

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
P01AG05561-05	HOUSE, JAMES S PRODUCTIVITY STRESS AND HEALTH IN MIDDLE AND LATE LIFE	09-01-89	08-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	1,165,232
P01AG05562-05	HOLLOSZY, JOHN O PHYSIOLOGICAL ADAPTATIONS TO EXERCISE IN THE ELDERLY	09-01-89	08-31-90	WASHINGTON UNIVERSITY	742,851
P01AG05568-05	SCHIMKE, ROBERT T GENOME EVOLUTION/REGULATION OF PROTEIN LEVELS IN AGING	08-01-89	07-31-90	STANFORD UNIVERSITY	565,041
R01AG05579-02S1	TAYLOR, JEROME FACTORS AFFECTING HEALTH OF BLACK WOMEN 25-65 YEARS OLD	08-01-89	12-31-89	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	13,123
R29AG05591-04	CUBA, LEE J PLACE IDENTITIES AMONG ELDERLY MIGRANTS AND NON-MIGRANTS	08-01-89	07-31-90	WELLESLEY COLLEGE	58,755
R29AG05592-05	CARSTENSEN, LAURA L BEHAVIORAL EFFECTS OF AGING IN LONG-TERM CARE	02-01-89	11-30-89	STANFORD UNIVERSITY	102,843
5 R01AG05601-05	MONNIER, VINCENT M BROWNING OF HUMAN COLLAGEN IN DIABETES AND AGING	04-01-89	03-31-90	CASE WESTERN RESERVE UNIVERSITY	119,100
5 R01AG05604-05	NIXON, RALPH A DYNAMICS OF THE NEURONAL CYTOSKELETON IN AGING BRAIN	09-01-89	08-31-90	MC LEAN HOSPITAL (BELMONT, MA)	168,555
5 R01AG05607-03	LAJTHA, ABEL ALTERATIONS IN BRAIN PROTEIN BREAKDOWN DURING AGING	01-01-89	12-31-89	NATHAN S. KLINE INSTITUTE FOR PSYCH RES	88,716
5 R29AG05609-04	BROWN, SCOTT C AGING AND THE INTERACTION OF DEMOGRAPHY AND HEARING LOSS	05-01-89	04-30-90	GALLAUDET UNIVERSITY	86,160
5 R01AG05627-05	BLASCHKE, TERRENCE F AGING AND IN VIVO VASCULAR RESPONSIVENESS IN MEN	08-01-89	07-31-90	STANFORD UNIVERSITY	170,898
5 R01AG05628-05	GOOD, ROBERT A CELLULAR ENGINEERING AND IMMUNOLOGICAL AGING	04-01-89	03-31-90	UNIVERSITY OF SOUTH FLORIDA	113,225

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET	DATES	INSTITUTION	TOTAL
		START	END		
5 R01AG05633-06	GOOD, ROBERT A NUTRITION AND DISEASES OF AGING--AUTOIMMUNITY	07-01-89	06-30-90	UNIVERSITY OF SOUTH FLORIDA	144,156
5 R01AG05643-03	WOLFSON, LESLIE I ABNORMALITIES OF BALANCE GAIT AND SENSORIMOTOR FUNCTION	12-01-88	11-30-89	YESHIVA UNIVERSITY	342,889
R01AG05657-05	PETTEGREW, JAY W NMR STUDIES OF BRAIN AGING IN ALZHEIMER'S DISEASE	08-01-89	07-31-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	134,507
R01AG05670-02	SHLAES, DAVID M ANTIBIOTIC RESISTANT BACILLI IN A NURSING HOME UNIT	09-01-89	08-31-90	CASE WESTERN RESERVE UNIVERSITY	101,058
R01AG05680-05	JERGER, JAMES F AGING--COGNITIVE/ADAPTIVE FACTORS IN AUDITORY FUNCTION	08-01-89	07-31-90	BAYLOR COLLEGE OF MEDICINE	145,671
P50AG05681-05	BERG, LEONARD ALZHEIMER'S DISEASE RESEARCH CENTER	05-03-89	04-30-90	WASHINGTON UNIVERSITY	1,274,027
R01AG05682-03	VOGT, THOMAS M SOCIAL PREDICTORS OF MORBIDITY AND MORTALITY	02-01-89	09-30-90	KAISER FOUNDATION RESEARCH INSTITUTE	159,937
R37AG05683-05	GLENNER, GEORGE G CEREBROVASCULAR AMYLOID PROTEIN IN ALZHEIMER'S DISEASE	09-01-89	08-31-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	219,380
5 R01AG05707-04	IOZZO, RENATO V PROTEOGLYCANS AND AGING VASCULAR CELLS	06-01-89	05-31-90	THOMAS JEFFERSON UNIVERSITY	125,602
7 R01AG05717-05	KRISHNARAJ, RAJABATHER AGE-ASSOCIATED ALTERATIONS IN HUMAN NK CELL SYSTEM	09-29-89	08-31-90	UNIVERSITY OF ILLINOIS AT CHICAGO	134,541
2 R01AG05739-04A1	BALL, KARLENE K IMPROVEMENT OF VISUAL PROCESSING IN OLDER ADULTS	04-01-89	03-31-90	WESTERN KENTUCKY UNIVERSITY	157,409
1 R43AG05784-01A1	KLAY, ESTHER J MD & PATIENT ACCEPTANCE OF MICROPROCESSOR DRUG DISPENSER	08-01-89	01-31-90	MEDICAL MICROSYSTEMS, INC.	25,881

RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 P01AG05793-04	JOHNSTON, C CONRAD, JR DETERMINANTS OF BONE MASS/ELDERLY	12-01-88	11-30-89	INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS	899,241
2 P01AG05842-04	WISE, DAVID A ECONOMICS OF AGING	01-09-89	12-31-89	NATIONAL BUREAU OF ECONOMIC RESEARCH	659,902
5 R01AG05876-03	HAUG, MARIE R SELF-CARE BEHAVIORS OF AGED JAPANESE	09-01-89	08-31-90	CASE WESTERN RESERVE UNIVERSITY	101,792
R01AG05880-03	THOMAN, MARILYN L INTERLEUKIN 2 SYNTHESIS AND ACTIVITY	05-01-89	04-30-90	SCRIPPS CLINIC AND RESEARCH FOUNDATION	81,889
R01AG05885-02	MODAN, BARUCH NATIONAL EPIDEMIOLOGICAL STUDY OF THE OLDEST OLD	09-30-89	08-31-90	CHAIM SHEBA MEDICAL CENTER	136,246
R37AG05890-05	BUDINGER, THOMAS F CEREBRAL BLOOD FLOW PATTERNS IN ALZHEIMER'S DISEASE	07-02-89	06-30-90	UNIVERSITY OF CALIF-LAWRENC BERKELEY LAB	249,501
R01AG05891-05	FRANGIONE, BLAS AMYLOIDOSIS AND ALZHEIMER'S DISEASE	07-01-89	06-30-90	NEW YORK UNIVERSITY	199,388
R01AG05892-08	IQBAL, KHALID ALZHEIMER NEUROFIBRILLARY TANGLES: BIOCHEMICAL STUDIES	05-01-89	04-30-90	INSTITUTE FOR BASIC RES IN DEV DISABIL	137,637
R01AG05893-10	HERSH, LOUIS B CHOLINE ACETYLTRANSFERASE	07-01-89	06-30-90	UNIVERSITY OF TEXAS SW MED CTR/DALLAS	119,133
5 R01AG05894-17	FINE, RICHARD E COATED VESICLES: MEMBRANE TRANSPORT IN MUSCLE, BRAIN	05-01-89	04-30-90	BOSTON UNIVERSITY	245,565
5 R01AG05909-03	KUTNER, NANCY G OLDER ESRD PATIENTS: REHABILITATION & QUALITY OF LIFE	07-01-89	03-31-90	EMORY UNIVERSITY	76,485
5 R01AG05917-05	ROTUNDO, RICHARD L REGULATION OF ACETYLCHOLINESTERASE SYNTHESIS/ASSEMBLY	05-01-89	04-30-90	UNIVERSITY OF MIAMI	88,914

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG05940-04	SCHWARTZ, JANICE B EFFECT OF AGING ON CALCIUM BLOCKER KINETICS/DYNAMICS	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	133,658
2 R01AG05963-03	RICE, GRACE E OLDER ADULTS' MEMORY FOR WRITTEN MEDICAL INFORMATION	06-01-89	05-31-90	ARIZONA STATE UNIVERSITY	115,260
5 R01AG05965-03	MEYER, EDWIN M TURNOVER OF HIGH AFFINITY CHOLINE TRANSPORT ACTIVITY	05-01-89	04-30-90	UNIVERSITY OF FLORIDA	62,214
R01AG05972-04	BOWLES, NANCY L ANALYSIS OF WORD RETRIEVAL DEFICITS IN THE AGED	12-01-88	11-30-89	BOSTON UNIVERSITY	101,035
R01AG05977-02	ROGOL, ALAN D REGULATION OF GONADOTROPIN SECRETION IN AGING WOMEN	08-01-89	07-31-90	UNIVERSITY OF VIRGINIA CHARLOTTESVILLE	124,837
R01AG05980-03	QUADRI, KALEEM S NEUROENDOCRINOLOGY OF REPRODUCTIVE AGING	08-01-89	07-31-90	KANSAS STATE UNIVERSITY	65,869
R29AG06017-04	LAKOSKI, JOAN M AGING AND ESTROGEN ON BIOGENIC AMINE CELL PHYSIOLOGY	12-01-88	11-30-89	UNIVERSITY OF TEXAS MEDICAL BRANCH	88,200
R01AG06036-04	ARNSTEN, AMY F COGNITIVE LOSS WITH AGE--ROLE OF CORTICAL CATECHOLAMINES	01-01-89	11-30-89	YALE UNIVERSITY	143,912
R29AG06045-04	FERRARO, KENNETH F ADEA AMENDMENT AND PUBLIC SUPPORT FOR OLDER WORKERS	02-01-89	01-31-90	NORTHERN ILLINOIS UNIVERSITY	57,933
R01AG06047-05	BLACK, PETER M IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS	09-01-89	08-31-90	BRIGHAM AND WOMEN'S HOSPITAL	85,119
R37AG06060-04	FELTEN, DAVID L MPTP--DEGENERATION OF MONOAMINE SYSTEMS, AND AGING	08-01-89	07-31-90	UNIVERSITY OF ROCHESTER	141,074
5 R01AG06066-03	DEMENT, WILLIAM C FOLLOW-UP OF ELDERLY PATIENTS WITH SLEEP APNEA	02-01-89	01-31-90	STANFORD UNIVERSITY	210,872

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RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	 END	INSTITUTION	TOTAL
5 R01AG006072-05	CZEISLER, CHARLES A DISRUPTED SLEEP IN THE ELDERLY: CIRCADIAN ETIOLOGY	06-01-89	05-31-90	BRIGHAM AND WOMEN'S HOSPITAL	272,266
5 R01AG006078-05	LAZARIDES, ELIAS VIMENTIN AND DESMIN EXPRESSION IN DEVELOPMENT	08-01-89	07-31-90	CALIFORNIA INSTITUTE OF TECHNOLOGY	134,424
5 R37AG006079-06	HOLICK, MICHAEL F INFLUENCE OF AGE ON 7-DEHYDROCHOLESTEROL IN THE SKIN	05-01-89	04-30-90	BOSTON UNIVERSITY	167,530
5 R01AG006088-04	GAGE, FRED H EMBRYONIC NERVE CELL TRANSPLANTATION IN AGED RAT BRAIN	12-01-88	06-30-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	114,779
5 R01AG006093-18	NAKAJIMA, YASUKO ULTRASTRUCTURE AND FUNCTION OF NERVE AND MUSCLE	09-01-89	08-31-90	UNIVERSITY OF ILLINOIS AT CHICAGO	159,369
5 P01AG006107-03	SCHLAEPFER, WILLIAM W NEURONAL CYTOSKELETON IN AGING AND DISEASE	01-01-89	12-31-89	UNIVERSITY OF PENNSYLVANIA	423,191
5 R37AG006108-05	HORNSBY, PETER J AGING OF ENDOCRINE CELLS IN CULTURE	04-01-89	03-31-90	MEDICAL COLLEGE OF GEORGIA	157,189
R01AG006116-05	DICE, JAMES F, JR PROTEIN DEGRADATION IN AGING HUMAN FIBROBLASTS	04-01-89	03-31-90	TUFTS UNIVERSITY	197,101
R01AG006123-05	HERTZOG, CHRISTOPHER K AGING AND COGNITIVE CORRELATES OF INTELLIGENCE	02-01-89	01-31-90	GEORGIA INSTITUTE OF TECHNOLOGY	90,858
R01AG006127-03	GILDEN, DONALD H NEUROBIOLOGY OF VARICELLA-ZOSTER VIRUS	07-01-89	06-30-90	UNIVERSITY OF COLORADO HLTH SCIENCES CTR	163,294
R01AG006130-04	WHITE, TIMOTHY P MUSCULAR ADAPTATIONS TO LONG-TERM TRAINING	05-01-89	04-30-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	150,476
R01AG006155-04	YOUNG, ANNE B ROLE OF GLUTAMATE IN ALZHEIMER'S DISEASE	08-01-89	07-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	116,728

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG06157-04	FAULKNER, JOHN A EXERCISE INJURY AND REPAIR OF MUSCLE FIBERS	05-01-89	04-30-91	UNIVERSITY OF MICHIGAN AT ANN ARBOR	128,996
5 R01AG06158-03	SCHEUER, JAMES EFFECT OF EXERCISE IN PREVENTING CARDIAC AGING	03-01-89	02-28-90	MONTEFIORE MEDICAL CENTER (BRONX, NY)	145,325
5 R01AG06159-03	VIJAYAN, VIJAYA K REACTIVE PROPERTIES OF BRAIN NEUROGLIA	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA DAVIS	83,813
2 R01AG06168-04	JAZWINSKI, S MICHAL CELLULAR AGING IN A YEAST MODEL SYSTEM	05-01-89	04-30-90	LOUISIANA STATE UNIV MED CTR NEW ORLEANS	171,871
5 R01AG06170-04	POTTER, LINCOLN T CHOLINERGIC MECHANISMS IN AGING AND ALZHEIMER'S DISEASE	05-01-89	04-30-90	UNIVERSITY OF MIAMI	187,945
5 R01AG06172-05	KOSIK, KENNETH S BIOCHEMISTRY AND PATHOBIOLOGY OF MAP TWO IN NEURONS	01-01-89	12-31-89	BRIGHAM AND WOMEN'S HOSPITAL	136,942
5 R01AG06173-05	SELKOE, DENNIS J AGING IN THE BRAIN--ROLE OF THE FIBROUS PROTEINS	09-01-89	08-31-90	BRIGHAM AND WOMEN'S HOSPITAL	254,245
5 R29AG06182-04	FORSTER, MICHAEL J IMMUNOLOGIC CORRELATES OF MEMORY DECLINE	07-01-89	06-30-90	TEXAS COLLEGE OF OSTEOPATHIC MEDICINE	83,414
R01AG06198-03	JOHNSON, ARTHUR G IMMUNE RESPONSES OF AGING BREEDER VS. AGING VIRGIN MICE	08-01-89	07-31-90	UNIVERSITY OF MINNESOTA OF MNPLS-ST PAUL	117,345
R01AG06202-08	ELBADAWI, AHMAD DEFECTS OF MUSCULAR INNERVATION IN NEUROGENIC BLADDER	09-01-89	08-31-90	HEALTH SCIENCE CENTER AT SYRACUSE	84,453
R01AG06217-03	FELDMAN, MARTIN L AUDITORY ANATOMY IN AGING RATS WITH EXTENDED LIFESPANS	08-01-89	07-31-90	BOSTON UNIVERSITY	122,446
R01AG06222-03	TAN, HONG W PRIVATE PENSIONS, IMPLICIT CONTRACTS AND OLDER WORKERS	12-01-88	11-30-89	RAND CORPORATION	60,287

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RANT NUMBER	PRINCIPAL INVESTIGATOR	BUDGET	DATES	INSTITUTION	TOTAL
	TITLE	START	END		
R01AG006226-03	MEYER, EDWIN M AGING AND BRAIN ACETYLCHOLINE RELEASE	01-01-89	12-31-89	UNIVERSITY OF FLORIDA	80,138
R01AG006232-03	HARRISON, DAVID E NUTRITIONAL EFFECTS ON AGING	09-01-89	08-31-90	JACKSON LABORATORY	289,766
R01AG006235-02	MARKIDES, KYRIAKOS S AGING AND HEALTH AMONG HISPANICS	03-01-89	02-28-90	UNIVERSITY OF TEXAS MEDICAL BRANCH	121,893
R01AG006246-04	KELLEY, KEITH W HORMONAL RESTORATION OF A FUNCTIONAL THYMUS DURING AGING	05-01-89	04-30-90	UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN	161,969
R01AG006265-04	PARK, DENISE C EFFECTS OF CONTEXT ON THE AGING MEMORY	01-01-89	12-31-89	UNIVERSITY OF GEORGIA	70,214
R01AG006299-04	GALILI, URI ANTI-GAL IGG ON HUMAN RED CELLS--A MODEL FOR CELL AGING	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	186,334
P01AG006309-04	MALETTA, GABE J CLINICAL RESEARCH CENTER FOR MANAGEMENT OF DEMENTIA	04-01-89	03-31-90	UNIVERSITY OF MINNESOTA OF MNPLS-ST PAUL	423,115
R01AG006319-04	KEMPER, SUSAN GERIATRIC PSYCHOLINGUISTICS	07-01-89	06-30-90	UNIVERSITY OF KANSAS LAWRENCE	99,475
R01AG006322-01A1	MAGAZINER, JAY EPIDEMIOLOGY--DETERMINANTS OF RECOVERY FROM HIP FRACTURE	01-01-89	12-31-89	UNIVERSITY OF MARYLAND BALT PROF SCHOOL	184,049
R01AG006344-02	PARRISH, CHARLES J LIFE SPAN DEVELOPMENT AND COMPETENCE	08-01-89	07-31-90	WAYNE STATE UNIVERSITY	122,181
R01AG006346-03	ROSE, MICHAEL R GENETICALLY POSTPONED SENESCENCE IN DROSOPHILA	07-01-89	06-30-90	UNIVERSITY OF CALIFORNIA IRVINE	123,263
R01AG006347-03	BUSBEE, DAVID L AGE-RELATED INHIBITION OF DNA SYNTHESIS INITIATION	05-01-89	04-30-90	TEXAS AGRI AND MECH UNIV COLLEGE STATION	96,442

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG06350-04	ABRAHAM, GEORGE N IMMUNOLOGIC ANALYSIS OF PREMALIGNANT & MALIGNANT B-CELLS	08-01-89	07-31-90	UNIVERSITY OF ROCHESTER	174,356
5 R01AG06352-04	MARTIN, ARLENE P MEMBRANE LIPID-ASSOCIATED CHANGES DURING AGING	09-01-89	08-31-90	UNIVERSITY OF MISSOURI COLUMBIA	85,306
5 R01AG06354-03	HIJMANS, WILLY HLA, AGE-RELATED IMMUNE PARAMETERS, LIFESPAN AND HEALTH	01-01-89	12-31-89	STATE UNIVERSITY OF LEIDEN	83,961
5 R01AG06377-03	BILLINGSLEY, MELVIN L METHYLATION OF CALMODULIN BINDING PROTEINS DURING AGING	01-01-89	12-31-89	PENNSYLVANIA STATE UNIV HERSHEY MED CTR	71,909
5 R01AG06380-02	KOTLIKOFF, LAURENCE J LIFE INSURANCE OF AMERICAN FAMILY: ADEQUACY/DETERMINANTS	06-01-89	05-31-90	BOSTON UNIVERSITY	94,053
5 R01AG06383-02	WOOD, JOHN G ALZHEIMER & AGING BRAIN CYTOSKELETAL PHOSPHORYLATION	04-01-89	03-31-90	EMORY UNIVERSITY	88,254
5 R01AG06384-03	LUINE, VICTORIA N HORMONAL INFLUENCES ON FOREBRAIN CHOLINERGIC SYSTEMS	12-01-88	11-30-89	HUNTER COLLEGE	105,224
5 R29AG06387-04	STERN, STEVEN N JOB EXIT BEHAVIOR OF OLDER WORKERS	07-01-89	06-30-90	UNIVERSITY OF VIRGINIA CHARLOTTESVILLE	87,179
5 R29AG06407-04	KOMM, BARRY S ROLE OF ESTROGEN IN BONE BIOLOGY AND OSTEOPOROSIS	07-01-89	06-30-90	UNIVERSITY OF ARIZONA	78,525
5 R01AG06432-03	HALSEY, JAMES H JR REGIONAL CEREBRAL BLOOD FLOW IN PROGRESSIVE DEMENTIA	08-01-89	07-31-90	UNIVERSITY OF ALABAMA AT BIRMINGHAM	125,443
5 R29AG06434-04	GERHARDT, GREG A AGE-INDUCED CHANGES IN MONOAMINE PRESYNAPTIC FUNCTION	08-01-89	07-31-90	UNIVERSITY OF COLORADO HLTH SCIENCES CTR	77,370
5 R01AG06442-04	PAIGE, GARY D SENSORY-MOTOR/ADAPTIVE MECHANISMS IN EQUILIBRIUM CONTROL	07-01-89	06-30-90	WASHINGTON UNIVERSITY	178,039

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	BUDGET DATES END	INSTITUTION	TOTAL
R01AG06445-04	STELMACH, GEORGE E SENSORY-MOTOR DYSFUNCTIONS RELATED TO FALLING	07-01-89	06-30-90	UNIVERSITY OF WISCONSIN MADISON	122,247
R01AG06457-03S1	HORAK, FAY B PERIPHERAL AND CENTRAL POSTURAL DISORDERS IN THE ELDERLY	09-01-89	09-29-89	GOOD SAMARITAN HOSP & MED CTR(PRTLND,OR)	9,134
R01AG06457-04	HORAK, FAY B PERIPHERAL AND CENTRAL POSTURAL DISORDERS IN THE ELDERLY	09-30-89	08-31-90	GOOD SAMARITAN HOSP & MED CTR(PRTLND,OR)	194,467
R29AG06484-04	WRONSKI, THOMAS J QUANTITATIVE BONE HISTOLOGY AFTER OVARIECTOMY	07-01-89	06-30-90	UNIVERSITY OF FLORIDA	83,865
R37AG06490-04	DEMENT, WILLIAM C SLEEP, EXERCISE, AGING AND THE CIRCADIAN SYSTEM	09-01-89	08-31-90	STANFORD UNIVERSITY	146,766
R44AG06511-02	HOLMES, DOUGLAS COMPUTER BASED INTERVENTION RE DEMENTED ELDERLY	01-01-89	12-31-89	[illegible] ASSOCIATES, INC.	112,043
5 R44AG06526-03	VERTREES, JAMES C ESTIMATE OF FINANCIAL LIABILITY FOR LONG-TERM CARE	08-01-89	07-31-90	LA JOLLA MANAGEMENT CORPORATION	239,479
5 R01AG06528-04	DAVIDSON, JEFFREY M ELASTIC AND COLLAGEN IN THE AGING PROCESS	02-01-89	01-31-90	VANDERBILT UNIVERSITY	89,560
2 R01AG06533-04	WILSON, PATRICIA D EFFECT OF AGING ON RENAL EPITHELIAL CELLS	04-01-89	03-31-90	UNIV OF MED/DENT NJ-R W JOHNSON MED SCH	121,694
5 R01AG06537-04	SEALS, DOUGLAS R HYPERTENSION IN THE ELDERLY--EFFECTS OF EXERCISE	08-01-89	07-31-90	UNIVERSITY OF ARIZONA	126,712
5 R01AG06557-04	ROPER, STEPHEN D NEURAL INFLUENCE ON AGING OF RECEPTOR CELLS	04-01-89	03-31-90	COLORADO STATE UNIVERSITY	127,716
5 R37AG06559-02	JOHNSON, COLLEEN L THE SOCIAL WORLD OF THE OLDEST OLD	03-01-89	02-28-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	136,578

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NT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
01AG06569-03	HARRELL, LINDY E ALZHEIMER'S DISEASE--A MULTIDISCIPLINARY APPROACH	08-01-89	07-31-90	UNIVERSITY OF ALABAMA AT BIRMINGHAM	513,772
P01AG06581-03	ABRASS, ITAMAR B METABOLIC AND CARDIAC EFFECTS OF EXERCISE IN THE ELDERLY	02-01-89	01-31-90	UNIVERSITY OF WASHINGTON	549,133
R01AG06584-04	GIVEN, CHARLES W CAREGIVER RESPONSES TO MANAGING ELDERLY PATIENTS AT HOME	05-01-89	04-30-90	MICHIGAN STATE UNIVERSITY	189,682
R01AG06591-03	KITSON, GAY C VIOLENT DEATH--LIFE COURSE ADJUSTMENT FOR WIDOWS	07-01-89	06-30-90	UNIVERSITY OF AKRON	268,439
01AG06601-03	KOSIK, KENNETH S PATHOBIOLOGY OF TAU PROTEIN	01-01-89	12-31-89	BRIGHAM AND WOMEN'S HOSPITAL	181,221
R37AG06605-03	CORKIN, SUZANNE H THEORETICAL ANALYSIS OF LEARNING IN AGE-RELATED DISEASE	02-01-89	01-31-90	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	171,982
R01AG06616-03	VERBRUGGE, LOIS M ARTHRITIS PHYSICAL AND SOCIAL DISABILITY IN ELDERLY	08-17-89	07-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	121,866
R01AG06618-03	WOLINSKY, FREDRIC D ETHNICITY, AGING, AND THE USE OF HEALTH SERVICES	12-01-88	11-30-90	TEXAS AGRI AND MECH UNIV COLLEGE STATION	143,191
R01AG06621-03	SCHULTZ, ALBERT B BIOMECHANICS OF HUMAN FALLS IN YOUNG ADULTS	08-01-89	07-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	177,582
R01AG06633-03	SAPOLSKY, ROBERT M AGING & HIPPOCAMPAL NEURON LOSS: ROLE OF GLUCOCORTICOID	01-05-89	12-31-89	STANFORD UNIVERSITY	150,760
R01AG06635-02	LONG, CALVIN L PROTEIN & ENERGY REQUIREMENTS IN THE GERIATRIC PATIENT	03-01-89	02-28-90	BAPTIST MEDICAL CENTERS	132,663
R01AG06641-03	ROBBINS, NORMAN PLASTICITY OF MOTOR NERVE TERMINALS IN YOUNG & OLD	01-01-89	12-31-89	CASE WESTERN RESERVE UNIVERSITY	99,956

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RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R37AG06643-03	LIANG, JERSEY WELL-BEING AMONG THE AMERICAN AND JAPANESE ELDERLY	05-01-89	04-30-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	85,818
R01AG06647-03	MORRISON, JOHN H CORTICO-CORTICAL LOSS IN ALZHEIMER'S DISEASE	08-01-89	07-31-90	MOUNT SINAI SCHOOL OF MEDICINE	120,128
R01AG06648-03	KROMER, LAWRENCE F ANALYSIS OF FACTORS PREVENTING CNS NEURON DEATH IN VIVO	01-01-89	12-31-89	GEORGETOWN UNIVERSITY	106,667
5 R01AG06650-03	BOWMAN, BARBARA H VITAMIN D BINDING PROTEIN IN AGING BONE CELLS	08-01-89	07-31-90	UNIVERSITY OF TEXAS HLTH SCI CTR SAN ANT	87,599
5 R01AG06656-03	YOUNKIN, STEVEN G ACHE, CHAT AND CHOLINERGIC NEURONS IN AGING	12-01-88	11-30-89	CASE WESTERN RESERVE UNIVERSITY	140,606
5 R01AG06660-03	CREWS, FULTON T RECEPTOR STIMULATED PHOSPHOINOSITIDE TURNOVER IN BRAIN	09-01-89	08-31-90	UNIVERSITY OF FLORIDA	113,539
5 R01AG06664-03	BOOTH, FRANK W PROTEIN SYNTHESIS IN THE SENESCENT HEART	08-01-89	07-31-90	UNIVERSITY OF TEXAS HLTH SCI CTR HOUSTON	96,23
5 R01AG06665-02	HORWITZ, BARBARA A EXERCISE EFFECTS ON RESPONSES TO COLD	04-01-89	03-31-90	UNIVERSITY OF CALIFORNIA DAVIS	173,47
2 R44AG06753-02	LEIRER, VON O MEMORY PERFECT: COMPUTERIZED MEMORY TRAINING FOR ELDERS	01-01-89	12-31-89	DECISION SYSTEMS	185,535
5 R01AG06765-04	GERMAN, PEARL S IMPACT OF MENTAL MORBIDITY ON NURSING HOME EXPERIENCE	08-01-89	07-31-90	JOHNS HOPKINS UNIVERSITY	80,417
5 R01AG06766-04	WALKER, ALEXIS J PARENT CARING AND THE MOTHER-DAUGHTER RELATIONSHIP	06-01-89	05-31-90	OREGON STATE UNIVERSITY	197,741
5 U01AG06777-03	COHEN, DONNA ALZHEIMER'S DISEASE PATIENT REGISTRY	01-01-89	12-31-89	UNIVERSITY OF ILLINOIS AT CHICAGO	453,096

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ANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
U01AG06781-03S1	LARSON, ERIC B ALZHEIMER'S DISEASE PATIENT REGISTRY	03-09-89	03-31-90	UNIVERSITY OF WASHINGTON	17,882
R01AG06785-03	WALLACE, ROBERT B ALZHEIMER DISEASE PATIENT REGISTRY	09-01-89	08-31-90	UNIVERSITY OF IOWA	276,702
U01AG06786-04	KURLAND, LEONARD T ALZHEIMER'S DISEASE PATIENT REGISTRY	09-01-89	08-31-90	MAYO FOUNDATION	395,798
U01AG06790-04	HEYMAN, ALBERT CONSORTIUM--ESTABLISHING AN ALZHEIMER'S DISEASE REGISTER	09-01-89	08-31-90	DUKE UNIVERSITY	843,626
5 R01AG06793-03	GOLDSTEIN, MELVIN C IMPACT OF CHINA'S ECONOMIC REFORMS ON THE ELDERLY	08-01-89	07-31-90	CASE WESTERN RESERVE UNIVERSITY	56,043
1 R01AG06794-01A2	CZAJA, SARA J AGE DIFFERENCES IN TASK STRESS FOR COMPUTER TASKS	01-01-89	12-31-89	STATE UNIVERSITY OF NEW YORK AT BUFFALO	111,420
5 P01AG06803-03	DAVIES, PETER FUNDAMENTAL STUDIES ON ALZHEIMER'S DISEASE	08-01-89	07-31-90	YESHIVA UNIVERSITY	790,265
5 R01AG06804-03	JOHNSON, COLLEEN L ELDERLY OUTPATIENT CARE AND INFORMAL SOCIAL SUPPORTS	05-01-89	04-30-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	126,915
5 R01AG06806-02	KIRASIC, KATHLEEN C AGING, COGNITIVE PROCESSING, AND LEARNING ABILITIES	05-01-89	04-30-90	UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA	79,916
5 R29AG06810-03	GOING, SCOTT B FAT AND FAT FREE BODY COMPOSITION IN OLDER MEN AND WOMEN	05-01-89	04-30-90	UNIVERSITY OF ARIZONA	74,978
5 P01AG06815-03	PECK, WILLIAM A FALLS AND HIP FRACTURES--CAUSES, RISKS, AND OUTCOMES	05-01-89	04-30-90	JEWISH HOSPITAL OF ST. LOUIS	1,014,326
5 R01AG06819-02	RICHARDSON, ARLAN G ROLE OF GENE EXPRESSION IN GLUCONEOGENESIS	05-01-89	04-30-90	ILLINOIS STATE UNIVERSITY	83,897

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R37AG06826-04	SALTHOUSE, TIMOTHY A ADULT AGE DIFFERENCES IN REASONING AND SPATIAL ABILITIES	08-01-89	07-31-90	GEORGIA INSTITUTE OF TECHNOLOGY	145,216
R01AG06831-02	LOGAN, JOHN R INFORMAL AND FORMAL SUPPORTS IN AGING	05-01-89	04-30-90	STATE UNIVERSITY OF NEW YORK AT ALBANY	128,323
P01AG06836-02	MONK, TIMOTHY H AGING, TEMPERATURE & SLEEP--CYCLIC REGULATORY MECHANISMS	04-01-89	03-31-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	517,677
R01AG06841-03	BEIDLER, LLOYD M EFFECT OF AGE ON TASTE	06-01-89	05-31-90	FLORIDA STATE UNIVERSITY	149,758
R29AG06849-02	OSTERGAARD, ARNE L PRIMING & MEMORY IN AMNESIA & ALZHEIMERS DISEASE	03-01-89	02-28-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	69,981
R29AG06854-02	SCHWAB, RISE IMPAIRED PROLIFERATION OF T LYMPHOCYTES FROM AGED HUMANS	08-01-89	07-31-90	CORNELL UNIVERSITY MEDICAL CENTER	80,973
5 R29AG06856-04	TAYLOR, ROBERT J FAMILIAL/NON-FAMILIAL SUPPORT NETWORK BLACK/WH ELDERLY	09-01-89	08-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	80,031
5 R01AG06858-03	SALTHOUSE, TIMOTHY A EFFECTS OF AGE ON SPATIAL ABILITIES AMONG ENGINEERS	06-01-89	05-31-90	GEORGIA INSTITUTE OF TECHNOLOGY	114,485
5 R01AG06860-03	CATHCART, EDGAR S AMYLOID, AGING AND DIET	09-01-89	08-31-90	BOSTON UNIVERSITY	126,507
5 R01AG06865-03	GROWDON, JOHN H GENETIC STUDIES OF ALZHEIMER'S DISEASE	06-01-89	05-31-90	MASSACHUSETTS GENERAL HOSPITAL	278,539
5 P01AG06872-03	BOWMAN, BARBARA H MOLECULAR GENETIC MECHANISMS OF AGING	05-01-89	04-30-90	UNIVERSITY OF TEXAS HLTH SCI CTR SAN ANT	666,884
5 R01AG06886-03	MC GUE, MATTHEW K TWIN STUDY OF NORMAL AGING	05-01-89	04-30-90	UNIVERSITY OF MINNESOTA OF MNPLS-ST PAUL	169,821

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R01AG06895-12	SCHIAVI, RAUL C PSYCHOPHYSIOLOGY OF SEXUAL FUNCTION AND DYSFUNCTION	12-01-88	11-30-90	MOUNT SINAI SCHOOL OF MEDICINE	240,184
R44AG06905-03	KILLION, MEAD C HIGH FIDELITY HEARING AID	06-01-89	05-31-90	ETYMOTIC RESEARCH	125,821
R01AG06912-03	DUCKLES, SUE P VASCULAR ADRENERGIC RESPONSIVENESS DURING AGING	02-01-89	01-31-90	UNIVERSITY OF CALIFORNIA IRVINE	152,084
R01AG06929-03	PREUSS, HARRY G MACRONUTRIENTS ON AGE-RELATED HYPERTENSION	03-01-89	02-28-90	GEORGETOWN UNIVERSITY	213,112
R01AG06942-03	VIRMANI, RENU MECHANISMS RESPONSIBLE FOR AGE-RELATED HYPERTENSION	01-01-89	12-31-89	MAYO FOUNDATION	139,361
R01AG06943-03	VLASSARA, HELEN GLYCOSYLATED PROTEINS IN AGE AND HYPERTENSION	02-01-89	01-31-90	ROCKEFELLER UNIVERSITY	170,523
R01AG06945-03A1	BLAIR, STEVEN N IMPACT OF PHYSIAL FITNESS AND EXERCISE ON HEALTH	04-01-89	03-31-90	INSTITUTE FOR AEROBICS RESEARCH	444,937
R01AG06946-04	ORME, IAN M AGING AND IMMUNITY TO TUBERCULOSIS	01-01-89	12-31-89	COLORADO STATE UNIVERSITY	127,024
2 R44AG06954-02A1	MENDELL, WILLIAM J MAMMALIAN DNA SEQUENCE MAPPING CENTER	06-05-89	05-31-90	GENETICS DATA SERVICES, INC.	240,871
5 R01AG06969-03	BINDER, LESTER I NEURONAL MICROTUBULE HETEROGENEITY	06-01-89	05-31-90	UNIVERSITY OF ALABAMA AT BIRMINGHAM	125,140
5 R29AG06970-04	WASHBURN, RICHARD A EPIDEMILOGY OF ACTIVITY IN A BIRACIAL OLDER POPULATION	09-01-89	08-31-90	NEW ENGLAND RESEARCH INSTITUTE, INC.	98,905
5 R29AG06977-04	ROSENTHAL, MARK J CENTRAL REGULATION OF GLUCOCORTICOIDES--EFFECTS OF AGE	09-01-89	08-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	65,982

RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R01AG06996-03	CASSEL, CHRISTINE K FORECASTING LIFE EXPECTANCY AND ACTIVE LIFE EXPECTANCY	08-01-89	07-31-90	UNIVERSITY OF CHICAGO	304,453
R37AG07001-03	LAWTON, M POWELL AFFECT, NORMAL AGING, AND PERSONAL COMPETENCE	07-01-89	06-30-90	PHILADELPHIA GERIATRIC CTR-FRIEDMAN HOSP	202,215
R29AG07004-03	KENNEY, WILLIAM L HEAT STRESS AND THERMOREGULATION: AGE AND GENDER EFFECTS	09-01-89	08-31-90	PENNSYLVANIA STATE UNIVERSITY PARK	94,064
R37AG07025-03	MANTON, KENNETH G FORECASTING LIFE EXPECTANCY AND ACTIVE LIFE	08-01-89	07-31-90	DUKE UNIVERSITY	190,703
R21AG07027-01S1	FREIDENBERG, JUDITH HEALTH-SEEKING BEHAVIOR OF LOW-INCOME ELDERLY HISPANICS	08-01-89	05-31-90	MOUNT SINAI SCHOOL OF MEDICINE	40,000
R01AG07046-23	HULTQUIST, DONALD E REDOX SYSTEMS OF ERYTHROCYTES	02-01-89	01-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	99,626
R01AG07050-02	RUBINSTEIN, ROBERT L LIFESTYLES AND GENERATIVITY OF CHILDLESS OLDER WOMEN	04-01-89	03-31-90	PHILADELPHIA GERIATRIC CTR-FRIEDMAN HOSP	224,315
R01AG07057-01A2	JACKSON, RODWIN A NORMAL AGING AND DIABETES--METABOLIC DISTINCTION	08-01-89	07-31-90	UNIVERSITY OF LONDON	77,035
R01AG07068-03	ORSON, FRANK M INTERLEUKIN 2 RECEPTORS IN AGING	09-01-89	08-31-90	BAYLOR COLLEGE OF MEDICINE	57,812
5 R29AG07069-03	NORMILE, HOWARD J ANIMAL MODELS OF DEMENTIA: NEUROTRANSMITTER INTERACTIONS	09-01-89	08-31-90	WAYNE STATE UNIVERSITY	83,647
5 P01AG07094-03	WALLACE, ROBERT B TEACHING NURSING HOME	09-01-89	08-31-90	UNIVERSITY OF IOWA	572,014
5 R01AG07113-03	MEIER, DIANE E INFLUENCE OF RACE AND AGE ON BONE HOMEOSTASIS	08-01-89	07-31-90	MOUNT SINAI SCHOOL OF MEDICINE	171,611

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	 END	INSTITUTION	TOTAL
5 P01AG07114-03	GILCHREST, BARBARA A IMPACT OF AGING ON CELL PROLIFERATION	08-01-89	07-31-90	BOSTON UNIVERSITY	485,500
5 R01AG07118-03	EL-FAKAHANY, ESAM E EFFECTS OF AGING ON BRAIN MUSCARINIC RECEPTORS	09-01-89	08-31-90	UNIVERSITY OF MARYLAND BALT PROF SCHOOL	60,016
5 P01AG07123-03	SMITH, JAMES R MOLECULAR APPROACHES TO THE STUDY OF CELLULAR AGING	09-01-89	08-31-90	BAYLOR COLLEGE OF MEDICINE	748,104
5 R29AG07127-04	PERLMUTTER, LYNN S CALPAIN AND SUBSTRATES IN AGED AND ALZEHEIMER BRAINS	09-01-89	08-31-90	UNIVERSITY OF SOUTHERN CALIFORNIA	85,313
5 R29AG07135-03	GALINSKY, RAYMOND E ETHANOL, THE AGING LIVER, AND DRUG SULFATION	08-01-89	07-31-90	UNIVERSITY OF UTAH	86,448
R01AG07137-03	MC ARDLE, J JACK GROWTH CURVES OF ADULT INTELLIGENCE	06-01-89	05-31-90	UNIVERSITY OF VIRGINIA CHARLOTTESVILLE	79,256
R01AG07139-02	MC KINLAY, JOHN B ORAL HEALTH OF OLDER ADULTS	04-01-89	03-31-90	NEW ENGLAND RESEARCH INSTITUTE, INC.	647,476
R29AG07141-03	CLAIBORNE, BRENDA J AGE-RELATED STRUCTURAL CHANGES IN MAMMALIAN NEURONS	08-01-89	07-31-90	UNIVERSITY OF TEXAS SAN ANTONIO	73,554
R01AG07153-02	BELMONT, JOHN M PROBLEM SOLVING AND MEMORY IN ELDERLY ADULTS	04-01-89	03-31-90	UNIVERSITY OF KANSAS COL HLTH SCI & HOSP	115,499
R01AG07154-02	SMITH, EVERETT L MUSCLE AND BONE RESPONSE TO EXERCISE IN ELDERLY WOMEN	04-01-89	03-31-90	UNIVERSITY OF WISCONSIN MADISON	62,161
R01AG07159-03	KIM, SUN-KEE SECRETORY PROTEIN SYNTHESIS DURING AGING	08-01-89	07-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	56,806
5 R01AG07161-02	RAY, WAYNE A HIP FRACTURE RISK AND USE OF PRESCRIBED MEDICATIONS	09-01-89	08-31-90	VANDERBILT UNIVERSITY	143,763

RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	BUDGET DATES END	INSTITUTION	TOTAL
R01AG07177-02	LIU, KORBIN PRIVATE EXPENSES FOR LONG-TERM CARE	04-01-89	03-31-90	URBAN INSTITUTE	147,201
R01AG07178-02	ALLMAN, RICHARD M PRESSURE SORES AMONG BEDRIDDEN HOSPITALIZED ELDERLY	08-01-89	07-31-90	UNIVERSITY OF ALABAMA AT BIRMINGHAM	177,358
R29AG07179-03	CHATTERS, LINDA M SUBJECTIVE WELL-BEING OF OLDER BLACKS	09-01-89	08-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	80,607
R29AG07180-03	MAZZEO, ROBERT S CATECHOLAMINE RESPONSE WITH AGE AND TRAINING	09-01-89	08-31-90	UNIVERSITY OF COLORADO AT BOULDER	72,988
R37AG07181-03	BARRETT-CONNOR, ELIZABETH L STUDY OF RISK FACTORS FOR OSTEOPOROSIS IN THE ELDERLY	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	407,580
R37AG07182-03	MC KINLAY, JOHN B PATHWAYS TO PROVISION OF CARE FOR FRAIL OLDER PERSONS	07-01-89	06-30-90	NEW ENGLAND RESEARCH INSTITUTE, INC.	353,525
R29AG07194-02	DAVIS, BARBARA J NEURAL REGULATION OF THE ENDOCRINE PANCREAS IN MICE	12-01-88	11-30-89	UNIVERSITY OF ROCHESTER	107,559
R01AG07195-03	FORD, AMASA B CLEVELAND ELDERLY 12 YEARS LATER	11-14-88	10-31-90	CASE WESTERN RESERVE UNIVERSITY	220,593
R37AG07198-03	MANTON, KENNETH G FUNCTIONAL & HEALTH CHANGES OF THE ELDERLY--1982-1988	07-01-89	06-30-90	DUKE UNIVERSITY	674,365
R44AG07199-02A1	WASHBURN, RICHARD A A PHYSICAL ACTIVITY QUESTIONNAIRE FOR OLDER ADULTS	07-01-89	06-30-90	NEW ENGLAND RESEARCH INSTITUTE, INC.	170,860
R01AG07208-03	YATES, F EUGENE BLOOD PRESSURE AND TEMPERATURE IN AGING	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	178,118
R01AG07218-03	HERMAN, BRIAN A MECHANISMS OF CELL DEATH IN HEPATOCYTES	05-01-89	04-30-90	UNIVERSITY OF NORTH CAROLINA CHAPEL HILL	123,150

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG07219-03	IVY, GWENDOLYN O MODEL FOR LIPOFUSCIN ACCUMULATION IN AGING & DISEASE	06-01-89	05-31-90	UNIVERSITY OF TORONTO	14,493
5 R01AG07224-04	FEINBERG, IRWIN WAKING-SLEEP RELATIONSHIPS IN DEVELOPMENT AND AGING	09-01-89	08-31-90	UNIVERSITY OF CALIFORNIA DAVIS	112,070
1 R01AG07225-01A1	WEI, JEANNE Y ORTHOSTATIC HYPOTENSION IN OLDER PERSONS	12-01-88	11-30-89	BETH ISRAEL HOSP (BOSTON)	94,788
5 R01AG07226-02	SCHMUCKER, DOUGLAS L AGING IMPAIRMENT OF GUT MUCOSAL IMMUNITY	07-01-89	06-30-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	68,954
1 R01AG07230-01A1	BLAU, DAVID M DYNAMICS OF RETIREMENT BEHAVIOR OF INDIVIDUALS	08-01-89	07-31-90	UNIVERSITY OF NORTH CAROLINA CHAPEL HILL	58,859
1 P01AG07232-01A1	MAYEUX, RICHARD P EPIDEMIOLOGY OF DEMENTIA IN AN URBAN COMMUNITY	02-01-89	01-31-90	COLUMBIA UNIVERSITY NEW YORK	1,300,958
3 R01AG07241-04S1	SELKOE, DENNIS J MOLECULAR PATHOLOGY OF ALZHEIMER PAIRED HELICAL FILAMENT	03-01-89	10-31-89	BRIGHAM AND WOMEN'S HOSPITAL	51,289
5 P01AG07347-02	GILDEN, DONALD H CHRONIC NEUROLOGIC DISEASE--NEUROTROPIC VIRUS	04-01-89	03-31-90	UNIVERSITY OF COLORADO HLTH SCIENCES CTR	718,797
R01AG07348-02	LANGSTON, J WILLIAM MPTP AND AGING--MOLECULAR/MORPHOLOGICAL CORRELATES	04-01-89	03-31-90	INSTITUTE FOR MED RES SANTA CLARA COUNTY	175,650
R01AG07350-02	TOBIS, JEROME S EXPERIMENTAL INTERVENTION FOR THE REDUCTION OF FALLS	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA IRVINE	254,400
R29AG07352-02	LARISH, DOUGLAS D ECONOMICAL WALKING IN THE AGED	08-01-89	07-31-90	ARIZONA STATE UNIVERSITY	86,083
R29AG07359-02	BURMER, GLENNA C CLONING OF THE WERNER'S SYNDROME DEFECT	04-01-89	03-31-90	UNIVERSITY OF WASHINGTON	69,661

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG07363-02	WEISS, ROBERT S TRANSITION TO RETIREMENT FROM MANAGERIAL ROLES	03-01-89	02-28-90	UNIVERSITY OF MASSACHUSETTS BOSTON	139,468
5 R01AG07367-02	ROGERS, JOSEPH PRESENCE AND ROLE OF IMMUNE MARKERS IN ALZHEIMER'S BRAIN	09-01-89	08-31-90	INSTITUTE FOR BIOGERONTOLOGY RESEARCH	147,742
5 R01AG07369-02	SCHIRCH, VERNE G PROTEIN DEAMIDATION; ROLE IN PROTEIN TURNOVER & AGING	03-01-89	02-28-90	VIRGINIA COMMONWEALTH UNIVERSITY	100,381
1 R01AG07370-01A1	STERN, YAAKOV PREDICTORS OF SEVERITY IN ALZHEIMERS DISEASE	02-01-89	01-31-90	COLUMBIA UNIVERSITY NEW YORK	409,690
5 R37AG07388-02	YOUNG, VERNON R REGULATION OF ENERGY METABOLISM IN AGING MAN	08-01-89	07-31-90	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	286,137
5 R01AG07405-03	MUTCHLER, JAN E CHANGE IN ELDERLY HOUSEHOLDS: RACE/ETHNIC COMPARISONS	09-01-89	08-31-90	STATE UNIVERSITY OF NEW YORK AT BUFFALO	104,587
5 R01AG07418-02	CARROLL, FRANK I NEW MUSCARINIC AGENTS--SELECTIVITY OF ACTION	04-01-89	03-31-90	RESEARCH TRIANGLE INSTITUTE	155,136
5 R29AG07424-02	ECKENSTEIN, FELIX P NEUROTROPHIC SUPPORT IN AGING & ALZHEIMER'S DISEASE	04-01-89	03-31-90	OREGON HEALTH SCIENCES UNIVERSITY	79,341
5 R01AG07425-02	RICE, DOROTHY P EPIDEMIOLOGY OF CHRONIC DISEASE IN THE OLDEST OLD	07-01-89	06-30-90	KAISER FOUNDATION RESEARCH INSTITUTE	438,995
R01AG07429-01A1	HEPPEL, LEON A BIOCHEMICAL CHANGES IN SENESCENT HUMAN FIBROBLASTS	06-01-89	05-31-90	CORNELL UNIVERSITY ITHACA	52,290
R01AG07433-01A2	RIED, L DOUGLAS ANTIHYPERTENSIVE DRUG USE AND FUNCTIONING IN THE ELDERLY	06-01-89	05-31-90	KAISER FOUNDATION RESEARCH INSTITUTE	114,040
R01AG07438-03	PESTRONK, ALAN AGING AND THE NEURONAL CYTOSKELETON	09-01-89	07-31-90	WASHINGTON UNIVERSITY	121,454

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG07444-02	WANG, YU-HWA E GROWTH CONTROL IN AGING FIBROBLASTS	03-01-89	02-28-90	MC GILL UNIVERSITY	94,276
1 R01AG07449-01A2	TINETTI, MARY E INJURY AND FUNCTIONAL DECLINE IN ELDERLY FALLERS	05-01-89	04-30-90	YALE UNIVERSITY	361,346
1 R01AG07450-01A2	MACIAG, THOMAS HUMAN ENDOTHELIAL CELL SENESCENCE GENES	05-01-89	04-30-90	AMERICAN NATIONAL RED CROSS	109,980
5 R29AG07452-02	MATT, DENNIS W REPRODUCTIVE AGING AND THE HYPOTHALAMIC-PITUITARY AXIS	08-01-89	07-31-90	VIRGINIA COMMONWEALTH UNIVERSITY	80,016
5 R01AG07457-02	SCHWEBER, MIRIAM DIAGNOSTIC TEST FOR PRESYMPTOMATIC ALZHEIMER'S DISEASE	04-01-89	03-31-90	BOSTON UNIVERSITY	128,878
5 R01AG07459-02	LIANG, MATTHEW H DEVELOPMENT & EVALUATION OF PHYSICAL FUNCTION MEASURES	04-01-89	03-31-90	BRIGHAM AND WOMEN'S HOSPITAL	111,303
5 R01AG07462-02	LEVINE, MICHAEL S DOPAMINERGIC MODULATION OF AGING STRIATUM	04-01-89	03-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	120,978
1 R29AG07465-01A2	ALDWIN, CAROLYN M PSYCHOSOCIAL FACTORS AFFECTING HEALTH AMONG OLDER MEN	08-01-89	07-31-90	BOSTON UNIVERSITY	87,887
5 R01AG07467-02	OOKHTENS, MURAD AGING ON EFFLUX AND TURNOVER OF HEPATIC GLUTATHIONE	05-01-89	04-30-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	109,762
5 R01AG07469-02	MANTON, KENNETH G ACTIVE LIFE EXPECTANCY IN OLD AND OLDEST-OLD POPULATIONS	04-01-89	03-31-90	DUKE UNIVERSITY	161,057
5 R01AG07470-02	CHAU, VINCENT ABERRANT UBIQUITINYLATION IN AGED AND ALZHEIMER BRAIN	04-01-89	03-31-90	UNIVERSITY OF FLORIDA	117,104
5 R01AG07472-02	DICE, JAMES F, JR DEGRADATION OF ABNORMAL PROTEINS IN SENESCENT	04-01-89	03-31-90	TUFTS UNIVERSITY	132,092

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG07473-02	UDUPA, KODETTHOOR B MICROENVIRONMENT, AGING, AND NEUTROPHIL FUNCTION	04-01-89	03-31-90	UNIVERSITY OF ARKANSAS MED SCIS LTL ROCK	69,831
5 R01AG07476-02	LEVENSON, ROBERT W AGING AND EFFECTIVE MARITAL FUNCTIONING	04-01-89	03-31-90	UNIVERSITY OF CALIFORNIA BERKELEY	227,931
5 R01AG07477-02	HALLORAN, BERNARD P RCT OF THE EFFECT OF VITAMIN D ON STRENGTH IN ELDERLY	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	189,879
5 R01AG07478-02	WEDLUND, PETER J AGE AND PROPRANOLOL ENANTIOMERIC KINETICS AND DYNAMICS	08-01-89	07-31-90	UNIVERSITY OF KENTUCKY	108,749
5 R29AG07480-02	IDLER, ELLEN L EPIDEMIOLOGY OF CHRONIC PAIN AND SELF-ASSESSED HEALTH	07-01-89	06-30-90	RUTGERS THE STATE UNIV NEW BRUNSWICK	53,713
7 R01AG07508-02	WARE, JOHN E VARIATIONS IN FUNCTIONING IN AN AGING POPULATION	09-30-89	08-31-90	NEW ENGLAND MEDICAL CENTER HOSPITALS,INC	281,863
1 R43AG07522-01A1	MC GOWAN, EDWARD J BIOFEEDBACK SYSTEM FOR URINARY & FECAL INCONTINENCE	07-01-89	12-31-89	E. J. MC GOWAN AND ASSOCIATES, INC.	50,000
5 R01AG07538-06	DERMAN, EVA STRUCTURE AND EXPRESSION OF MOUSE MAJOR URINARY PROTEIN	09-01-89	08-31-90	PUBLIC HLTH RES INST OF THE CITY OF NY	201,602
5 P01AG07542-03	PARFITT, A MICHAEL BONE REMODELING: AMOUNT/QUALITY OF BONE NAD FRACTURES	09-01-89	08-31-90	HENRY FORD HOSPITAL	563,253
1 R01AG07546-01A1	LEON, MICHAEL A NEURAL DETOXIFICATION SYSTEMS IN THE AGED	05-01-89	04-30-90	UNIVERSITY OF CALIFORNIA IRVINE	76,340
1 R01AG07547-01A1	PERETZ, BERTRAM NEURON VIABILITY IN THE ADULT NERVOUS SYSTEM	12-01-88	11-30-89	UNIVERSITY OF KENTUCKY	102,176
2 R13AG07548-02	COE, RODNEY M INTERNATIONAL CONGRESS OF GERONTOLOGY	04-01-89	09-30-89	GERONTOLOGICAL SOCIETY OF AMERICA	76,128

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RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG07552-02	PERRY, GEORGE AMYLOID PRECURSOR IN ALZHEIMER DISEASE	04-01-89	03-31-90	CASE WESTERN RESERVE UNIVERSITY	50,181
5 R37AG07554-02	WILLOTT, JAMES F AGING AND CENTRAL AUDITORY SYSTEM MORPHOLOGY	05-01-89	04-30-90	NORTHERN ILLINOIS UNIVERSITY	64,594
5 R01AG07560-02	BARNES, DAVID W DETERMINANTS OF CELLULAR SENESCENCE IN VITRO	05-01-89	04-30-90	OREGON STATE UNIVERSITY	104,331
1 R01AG07562-01A1	GANGULI, MARY EPIDEMIOLOGY OF DEMENTIA--A PROSPECTIVE COMMUNITY STUDY	01-01-89	12-31-89	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	298,604
1 R01AG07569-01A1	PARASURAMAN, RAJA ATTENTION IN AGING AND EARLY ALZHEIMER'S DEMENTIA	04-01-89	03-31-90	CATHOLIC UNIVERSITY OF AMERICA	95,262
5 R01AG07572-02	KALU, DIKE N MODULATION OF AGING BONE LOSS BY ANABOLIC HORMONES	04-01-89	03-31-90	UNIVERSITY OF TEXAS HLTH SCI CTR SAN ANT	155,076
5 R01AG07584-02	KUKULL, WALTER ANTHONY GENETIC DIFFERENCES IN ALZHEIMERS CASES AND CONTROL	04-01-89	03-31-90	UNIVERSITY OF WASHINGTON	201,549
5 R01AG07591-02	KOZIKOWSKI, ALAN P AGENTS FOR THE TREATMENT OF MEMORY & LEARNING DISORDERS	04-01-89	03-31-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	122,377
1 R01AG07592-01	BARNARD, ROY J MECHANISMS OF AGING INDUCED INSULIN RESISTANCE	01-01-89	12-31-89	UNIVERSITY OF CALIFORNIA LOS ANGELES	127,890
5 R29AG07597-02	STULL, DONALD E CARING FOR ELDERS--IMPACT OF SOCIAL SUPPORT AND BURDEN	04-01-89	03-31-90	UNIVERSITY OF AKRON	80,514
5 R01AG07603-02	KAWANISHI, HIDENORI IMMUNE INTERVENTIONS OF AGED GUT MUCOSAL T CELL DEFECTS	09-01-89	08-31-90	STATE UNIVERSITY NEW YORK STONY BROOK	93,743
5 R01AG07604-02	HAUSER, ROBERT M TRENDS IN SES ACHIEVEMENT ACROSS THE LIFE COURSE	06-01-89	05-30-90	UNIVERSITY OF WISCONSIN MADISON	177,753

RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R01AG07618-01A1	BEYENE, YEWOUBDAR MENOPAUSE, AGING & OSTEOPOROSIS: CROSS-CULTURAL INQUIRY	05-01-89	04-30-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	135,671
R01AG07624-01A1	CHUI, HELENA C ALZHEIMER'S DISEASE AND CEREBRAL AMYLOID ANGIOPATHY	01-01-89	12-31-89	UNIVERSITY OF SOUTHERN CALIFORNIA	141,999
7 R01AG07631-02	BRATER, DONALD C CLINICAL PHARMACOLOGY OF NSAIDS IN THE ELDERLY	04-01-89	03-31-90	INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS	234,187
3 R01AG07631-02S1	BRATER, DONALD C CLINICAL PHARMACOLOGY OF NSAIDS IN THE ELDERLY	09-30-89	03-31-90	INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS	69,741
1 R37AG07637-01A1	HERMALIN, ALBERT I COMPARATIVE STUDY OF THE ELDERLY IN FOUR ASIAN COUNTRIES	03-08-89	02-28-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	258,778
5 R29AG07651-02	GARBER, ALAN M MD HEALTH ECONOMICS OF AGING	04-01-89	03-31-90	STANFORD UNIVERSITY	89,201
5 R01AG07654-03	FISK, ARTHUR D AUTOMATIC/CONTROLLED PROCESSING AND AGING	09-01-89	08-31-90	GEORGIA INSTITUTE OF TECHNOLOGY	95,840
5 R01AG07657-02	SOHAL, RAJINDAR S CELLULAR AGING AND OXYGEN FREE RADICALS	08-01-89	07-31-90	SOUTHERN METHODIST UNIVERSITY	84,434
5 R01AG07660-02	GOLDBERG, ANDREW P AEROBIC CAPACITY AND METABOLIC FUNCTION IN SENIORS	04-01-89	03-31-90	JOHNS HOPKINS UNIVERSITY	240,468
1 P01AG07669-01A1	RAINWATER, LEE P COMPARATIVE LIFE COURSE RESEARCH ON ECONOMIC WELL-BEING	09-01-89	08-31-90	HARVARD UNIVERSITY	79,32
5 R01AG07671-02	SCHMECHEL, DONALD E CHOLINERGIC DEFICIENCY	05-01-89	04-30-90	DUKE UNIVERSITY	121,33
1 R01AG07677-01A1	SHAFIT-ZAGARDO, BRIDGET SECOND MESSENGERS IN ASTROCYTES AND PRECURSOR CELLS	12-01-88	11-30-89	YESHIVA UNIVERSITY	161,10

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ANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R01AG007683-02	PAMPEL, FRED C CROSS NATIONAL RESEARCH ON THE AGED AND PENSION POLICY	08-01-89	07-31-90	FLORIDA STATE UNIVERSITY	30,226
P01AG007687-02	SIMON, MELVIN I AGING IN THE NERVOUS SYSTEM OF TRANSGENIC MICE	05-01-89	04-30-90	CALIFORNIA INSTITUTE OF TECHNOLOGY	348,444
R01AG007691-03	CRUTCHER, KEITH A NEURONAL PLASTICITY IN THE AGED RAT HIPPOCAMPUS	09-01-89	08-31-90	UNIVERSITY OF CINCINNATI	115,070
R01AG007695-02	LAL, HARBANS NEUROBEHAVIORAL AND IMMUNOLOGICAL MARKERS OF AGING	04-01-89	03-31-90	TEXAS COLLEGE OF OSTEOPATHIC MEDICINE	136,825
5 R01AG007700-02	FRIEDMAN, EITAN AGING, PROTEIN KINASE C AND SEROTONIN RELEASE	04-01-89	03-31-90	MEDICAL COLLEGE OF PENNSYLVANIA	99,096
5 R01AG007711-02	REISER, KAREN M COLLAGEN CROSSLINKS: BIOMARKERS OF AGING	04-01-89	03-31-90	UNIVERSITY OF CALIFORNIA DAVIS	91,603
5 R01AG007719-02	MURASKO, DONNA M IMMUNE AND NEUROLOGIC PARAMETERS AS BIOMARKERS OF AGING	04-01-89	03-31-90	MEDICAL COLLEGE OF PENNSYLVANIA	150,988
5 R01AG007723-02	GALLOP, PAUL M BIOMARKERS OF AGING--CIRCULATING/DEPOSITED OSTEOCALCIN	04-01-89	03-31-90	HARVARD UNIVERSITY	132,102
5 R01AG007724-02	WOLF, NORMAN S CELL RENEWAL, SIZE, AND CLONING AS BIOMARKERS OF AGING	04-01-89	03-31-90	UNIVERSITY OF WASHINGTON	200,216
5 R01AG007732-02	DIAMOND, JACK PERIPHERAL NGF-RELATED SENSORY MARKERS OF AGING IN SKIN	04-15-89	03-31-90	MC MASTER UNIVERSITY	47,373
5 R01AG007735-02	OLTON, DAVID S BEHAVIORAL AND PHYSIOLOGICAL BIOMARKERS OF AGING	04-01-89	03-31-90	JOHNS HOPKINS UNIVERSITY	123,133
5 R01AG007736-02	DAVIS, PAUL J CELLULAR BIOMARKERS OF AGING	04-01-89	03-31-90	STATE UNIVERSITY OF NEW YORK AT BUFFALO	125,049

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RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R01AG07739-02	BUSBEE, DAVID L DNA POLYMERASE ALPHA EXPRESSION--BIOMARKER OF AGING	04-01-89	03-31-90	TEXAS AGRI AND MECH UNIV COLLEGE STATION	100,184
R01AG07747-02	BRONSON, RODERICK T AGE RELATED LEGIONS AS BIOMARKERS OF AGING	04-01-89	03-31-90	TUFTS UNIVERSITY	106,845
R01AG07750-02	RANDERATH, KURT DNA MODIFICATIONS--I COMPOUNDS AS BIOMARKERS OF AGING	04-01-89	03-31-90	BAYLOR COLLEGE OF MEDICINE	91,551
R01AG07752-02	SONNTAG, WILLIAM E GROWTH HORMONE & GH-DEPENDENT BIOMARKERS OF AGING	04-01-89	03-31-90	WAKE FOREST UNIVERSITY	102,03
R43AG07759-01A1	LUCERO, MARY E PRODUCT FOR ALZHEIMER'S SELF-STIMULATORY WANDERERS	08-08-89	02-07-90	GERIATRIC RESOURCES, INC.	50,00
5 R01AG07767-02	LANDFIELD, PHILIP W BIOMARKERS OF BRAIN AGING	04-01-89	03-31-90	WAKE FOREST UNIVERSITY	153,41
5 R01AG07771-03	NORTH, WILLIAM G NEUROPEPTIDES IN CENTRAL DISORDERS: ALZHEIMER'S DISEASE	09-01-89	08-31-90	DARTMOUTH COLLEGE	134,65
5 R01AG07772-02	GUILLEMINAULT, CHRISTIAN SLEEP, CIRCADIAN RHYTHMS, ACTIVITY, AND THE HEART	04-01-89	03-31-90	STANFORD UNIVERSITY	156,85
5 R01AG07788-02	CHARLESWORTH, BRIAN MUTATIONAL VARIATION IN LIFE HISTORIES	09-01-89	08-31-90	UNIVERSITY OF CHICAGO	153,57
5 R01AG07790-02	LACHMAN, MARGIE E ENHANCING MEMORY CONTROL BELIEFS AND PERFORMANCE	08-01-89	07-31-90	BRANDEIS UNIVERSITY	96,81
5 R01AG07793-02	JAGUST, WILLIAM J LONGITUDINAL SPECT AND PET STUDIES OF DEMENTIA	07-01-89	06-30-90	UNIVERSITY OF CALIF-LAWRENC BERKELEY LAB	241,44
1 R01AG07794-01A1	STOLLER, ELEANOR P SELF CARE-LAY RESPONSE TO ILLNESS	05-01-89	04-30-90	COLLEGE AT PLATTSBURGH	243,80

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	END	INSTITUTION	TOTAL
R01AG07798-02	BARTLETT, JAMES C HUMAN AGING AND FACE MEMORY	09-01-89	08-31-90	UNIVERSITY OF TEXAS DALLAS	52,482
R01AG07801-02	MONTGOMERY, MARK R TOXICOLOGY OF PULMONARY OXIDANT INJURY IN AGING	08-01-89	07-31-90	UNIVERSITY OF SOUTH FLORIDA	73,550
R01AG07802-02	DAVIS, MARADEE A EPIDEMIOLOGY OF OSTEOARTHRITIS AND DISC DEGENERATION	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	158,452
R01AG07805-01	GRIFFITH, WILLIAM H, III PHYSIOLOGY OF CHOLINERGIC BASAL FOREBRAIN NEURONS	01-01-89	12-31-89	TEXAS AGRI AND MECH UNIV COLLEGE STATION	79,020
R01AG07806-01A1	LABOV, WILLIAM LONGTIUDINAL STUDY OF LANGUAGE IN NORMAL AGING	09-01-89	08-31-90	UNIVERSITY OF PENNSYLVANIA	156,488
R01AG07812-01A1	GILINSKY, ALBERTA S JUDGEMENT AND REASONING ACROSS THE LIFE SPAN	09-01-89	08-31-90	UNIVERSITY OF BRIDGEPORT	64,280
R01AG07818-02	LONGINO, CHARLES F, JR HEALTH AND RESIDENTIAL MOBILITY AMONG THE OLD	07-01-89	06-30-90	UNIVERSITY OF MIAMI	109,330
1 R37AG07823-01A1	KAHANA, EVA F ADAPTATION TO FRAILTY AMONG DISPERSED ELDERLY	07-01-89	06-30-90	CASE WESTERN RESERVE UNIVERSITY	173,229
1 R01AG07831-01A1	ERSHLER, WILLIAM B CALORIE RESTRICTION AND AGING IN NON-HUMAN PRIMATES	06-01-89	05-31-90	UNIVERSITY OF WISCONSIN MADISON	201,298
5 R01AG07849-02	HENRETTA, JOHN C JOINT RETIREMENT IN TWO-WORKER COUPLES	09-01-89	08-31-90	UNIVERSITY OF FLORIDA	64,476
5 R29AG07854-02	MITCHELL, DAVID B NORMAL AGING--EVIDENCE FOR MULTIPLE MEMORY SYSTEMS	07-01-89	06-30-90	SOUTHERN METHODIST UNIVERSITY	41,604
5 R29AG07855-02	PETERSON, CHRISTINE ALTERED CALCIUM HOMEOSTASIS TO DIAGNOSE ALZHEIMER'S	07-01-89	06-30-90	UNIVERSITY OF CALIFORNIA IRVINE	69,353

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	 END	INSTITUTION	TOTAL
5 R29AG07857-02	POEHLMAN, ERIC T PHYSICAL ACTIVITY AND ENERGY METABOLISM IN AGING MAN	08-01-89	07-31-90	UNIVERSITY OF VERMONT & ST AGRIC COLLEGE	78,158
5 R01AG07860-02	GAUBATZ, JAMES W DNA DAMAGE DURING AGING OF POSTMITOTIC CELLS	07-01-89	06-30-90	UNIVERSITY OF SOUTH ALABAMA	80,503
R01AG07861-02	FELSON, DAVID T OSTEOARTHRITIS AND PHYSICAL DISABILITY IN THE ELDERLY	07-01-89	06-30-90	BOSTON UNIVERSITY	152,184
R01AG07866-02	CARROLL, JAMES P POSTURAL SYSTEM IN THE AGED	08-18-89	07-31-90	PENNSYLVANIA COLLEGE OF OPTOMETRY	95,225
R01AG07875-02	BRUCE, SARAH A CELLULAR AGING OF MESENCHYME TISSUE IN VIVO & IN VITRO	07-01-89	06-30-90	JOHNS HOPKINS UNIVERSITY	154,301
R01AG07886-02	HOLLAND, AUDREY L DISCOURSE AND EVERYDAY REMEMBERING	07-01-89	06-30-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	64,004
R01AG07891-01A1	BLANKS, JANET M MECHANISMS OF RETINAL DEFECTS IN ALZHEIMERS DISEASE	05-05-89	04-30-90	ESTELLE DOHENY EYE FOUNDATION	140,388
R01AG07892-01A1	MORGAN, DAVID G CHANGES IN BRAIN ASTROCYTES WITH AGING	05-22-89	04-30-90	UNIVERSITY OF SOUTHERN CALIFORNIA	154,150
R01AG07895-02	ZACKS, JAMES L VISUAL PROCESSING OF FEATURES AND OBJECTS IN AGING	08-01-89	07-31-90	MICHIGAN STATE UNIVERSITY	82,079
1 R01AG07906-01	GROWDON, JOHN H PHOSPHOLIPID ABNORMALITIES IN ALZHEIMER'S DISEASE	06-01-89	05-31-90	MASSACHUSETTS GENERAL HOSPITAL	156,540
*7 R29AG07907-03	MC AULEY, EDWARD SELF-EFFICACY COGNITION, EXERCISE, AND AGING	09-01-89	06-30-90	UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN	62,336
1 R35AG07909-01	FINCH, CALEB E LEADERSHIP AND EXCELLENCE IN ALZHEIMER'S DISEASE	01-01-89	12-31-89	UNIVERSITY OF SOUTHERN CALIFORNIA	752,35

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R35AG07911-02	SELKOE, DENNIS J LEADERSHIP AND EXCELLENCE IN ALZHEIMER'S DISEASE	08-02-89	07-31-90	BRIGHAM AND WOMEN'S HOSPITAL	806,303
1 R35AG07914-01	PRICE, DONALD L MOLECULAR NEUROPATHOLOGY OF AGING AND DEMENTIA	01-01-89	12-31-89	JOHNS HOPKINS UNIVERSITY	789,824
1 R35AG07918-01	COTMAN, CARL W NEURONAL PLASTICITY VERSUS PATHOLOGY IN ALZHEIMER'S	01-01-89	12-31-89	UNIVERSITY OF CALIFORNIA IRVINE	766,248
R35AG07922-02	ROSES, ALLEN D GENETICS OF LATE AND EARLY ONSET ALZHEIMER'S DISEASE	08-01-89	07-31-90	DUKE UNIVERSITY	845,578
U01AG07929-02	DEFRIESE, GORDON H SELF-CARE ASSESSMENT OF THE COMMUNITY-BASED ELDERLY	08-02-89	07-31-90	UNIVERSITY OF NORTH CAROLINA CHAPEL HILL	826,456
R29AG07933-01	ERICKSON, KENNETH R EVOKED POTENTIALS EARLY ALZHEIMERS DISEASE DETECION	07-01-89	06-30-90	GOOD SAMARITAN HOSP & MED CTR(PRTLND,OR)	90,304
R01AG07939-02	JUSTER, F THOMAS LIFE COURSE SAVING AND WEALTH FROM THE PSID	07-01-89	06-30-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	136,072
R01AG07972-01	DENHARDT, DAVID T ALTERED GENE EXPRESSION IN IMMORTAL/SENESCENT CELLS	05-01-89	04-30-90	RUTGERS THE STATE UNIV NEW BRUNSWICK	157,166
R01AG07973-01	PARNES, HERBERT S NLS RESURVEY--OLDER MALE SURVIVORS & DECEDENTS WIDOWS	12-01-88	11-30-89	OHIO STATE UNIVERSITY	218,440
R37AG07977-07	BENGTSON, VERN L A LONGITUDINAL STUDY OF GENERATIONS AND MENTAL HEALTH	03-01-89	02-28-90	UNIVERSITY OF SOUTHERN CALIFORNIA	520,137
R01AG07985-01A1	GUBRIUM, JABER F INSTITUTIONALIZATION & LIFE COURSE NARRATIVE IN OLD AGE	09-01-89	08-31-90	UNIVERSITY OF FLORIDA	117,296
1 R01AG07992-01	WRIGHT, WOODRING E MECHANISMS OF CELLULAR IMMORTALIZATION	04-01-89	03-31-90	UNIVERSITY OF TEXAS SW MED CTR/DALLAS	192,149

RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
P01AG07996-01	SEEGMILLER, J EDWIN JOINT AGING AND OSTEOARTHRITIS	12-01-88	11-30-89	UNIVERSITY OF CALIFORNIA SAN DIEGO	773,088
R01AG07997-02	MOROKOFF, PATRICIA J AGE, PSYCHOSEXUAL RESPONSE, AND REPRODUCTIVE HORMONES	04-01-89	03-31-90	UNIVERSITY OF RHODE ISLAND	57,767
R01AG07998-01	DIVENYI, PIERRE L SPEECH PERCEPTION UNDER NON-OPTIMAL CONDITIONS IN AGING	03-01-89	02-28-90	U.S. VETS ADMIN MED CTR (MARTINEZ, CA)	92,260
R01AG07999-01	QUANDT, SARA A NUTRITIONAL STRATEGIES & DIETARY STATUS OF RURAL ELDERLY	05-01-89	04-30-90	UNIVERSITY OF KENTUCKY	85,722
R01AG08010-01A1	BURGIO, KATHRYN L BEHAVIORAL VS. DRUG INTERVENTION--URINARY INCONTINENCE	07-01-89	06-30-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	171,257
P50AG08012-02	WHITEHOUSE, PETER J UHC/CWRU ALZHEIMERS DISEASE RESEARCH CENTER	09-01-89	08-31-90	CASE WESTERN RESERVE UNIVERSITY	1,230,383
P50AG08013-02	ROSENBERG, ROGER N NEUROBIOLOGY OF ALZHEIMERS DISEASE AND AGING	09-01-89	08-31-90	UNIVERSITY OF TEXAS SW MED CTR/DALLAS	1,359,417
R01AG08018-23	AMINOFF, DAVID BIOSYNTHESIS & DEGRADATION OF BLOOD GROUP SUBSTANCES	05-03-89	04-30-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	105,621
R37AG08055-01	SCHAIE, K WARNER LONGITUDINAL STUDIES OF ADULT COGNITIVE DEVELOPMENT	12-05-88	11-30-89	PENNSYLVANIA STATE UNIVERSITY PARK	332,571
R01AG08057-01	BATES, BARRY T AGING AND TRANSFER OF TRAINING--EXERCISE INTERVENTION	01-01-89	12-31-89	UNIVERSITY OF OREGON	53,207
R01AG08060-01	PLUDE, DANA JEFFREY AGING, FEATURE INTEGRATION, & VISUAL SELECTIVE ATTENTION	01-01-89	12-31-89	UNIVERSITY OF MARYLAND COLLEGE PK CAMPUS	54,532
R01AG08082-01A1	WILLIS, SHERRY L PRACTICAL INTELLIGENCE AND MENTAL ABILITIES IN OLD AGE	07-01-89	06-30-90	PENNSYLVANIA STATE UNIVERSITY PARK	178,160

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RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R01AG08085-01	POTTER, HUNTINGTON AMYLOID DEPOSITION--AGING AND ALZHEIMERS DISEASE	02-01-89	01-31-90	HARVARD UNIVERSITY	138,945
R01AG08094-01	LIANG, JERSEY WELL-BEING AMONG THE AGED--THREE NATION STUDY	09-01-89	08-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	297,953
R01AG08099-01	TORAN-ALLERAND, C DOMINIQUE INTERACTIONS OF NGF/ESTROGEN IN CNS DEVELOPMENT & AGING	04-01-89	03-31-90	COLUMBIA UNIVERSITY NEW YORK	155,740
R01AG08102-01A1	GROSSMANN, ANGELIKA INTRACELLULAR CALCIUM REGULATION IN ALZHEIMER'S DISEASE	07-01-89	06-30-90	UNIVERSITY OF WASHINGTON	164,616
R01AG08106-01A1	WALSH, DAVID A INDIVIDUAL DECISION MAKING AND SUCCESSFUL AGING	08-01-89	07-31-90	UNIVERSITY OF SOUTHERN CALIFORNIA	98,849
R01AG08109-05	O'CONNOR, CLARE M METHYLATION OF ATYPICAL PROTEIN ASPARTYL RESIDUES	08-01-89	07-31-90	WORCESTER FOUNDATION FOR EXPER BIOLOGY	246,891
R01AG08117-01	CORKIN, SUZANNE H EFFECTS OF AD ON BASIC AND HIGH-ORDER SENSORY CAPACITIES	01-01-89	12-31-89	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	225,573
R01AG08122-01	WOLF, PHILIP A EPIDEMIOLOGY OF DEMENTIA IN THE FRAMINGHAM COHORT	01-01-89	12-31-89	BOSTON UNIVERSITY	167,842
R01AG08125-01	KELMAN, HOWARD R HEALTH--HEALTH CARE, FAMILY, AND SOCIAL TRANSITIONS	03-01-89	02-28-90	MONTEFIORE MEDICAL CENTER (BRONX, NY)	273,356
R29AG08133-01	COLLIER, TIMOTHY J NOREPINEPHRINE SUPPLEMENTATION IN AGING	12-01-88	11-30-89	UNIVERSITY OF ROCHESTER	112,397
R29AG08134-02	ANDERSON, TRUDY B AGING COUPLES--LAST STAGE OF FAMILY LIFE	05-01-89	04-30-90	UNIVERSITY OF NORTH CAROLINA GREENSBORO	54,116
R01AG08145-02	RICE, DOROTHY P COSTS OF FORMAL AND INFORMAL CARE--ALZHEIMER'S PATIENTS	07-01-89	06-30-90	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	294,721

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RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R37AG08146-01	WISE, DAVID A PENSION PLAN PROVISIONS AND EARLY RETIREMENT	01-09-89	12-31-89	NATIONAL BUREAU OF ECONOMIC RESEARCH	104,653
R01AG08148-01	DOTY, RICHARD L EARLY DIAGNOSIS OF ALZHEIMER'S DISEASE & PARKINSONISM	07-01-89	06-30-90	UNIVERSITY OF PENNSYLVANIA	285,816
R43AG08151-01	LERNER, NEIL D SMOKE ALARM/EMERGENCY EGRESS DEVICE FOR OLDER USERS	04-01-89	02-28-90	COMSIS CORPORATION	50,000
R37AG08155-01	GAMBETTI, PIERLUIGI MOLECULAR PATHOLOGY OF ALZHEIMER DISEASE	05-01-89	03-31-90	CASE WESTERN RESERVE UNIVERSITY	201,214
R01AG08172-02	KITTRELL, E MELANIE CIRCADIAN RHYTHMS AND THERMOREGULATION	06-01-89	05-31-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	86,346
R01AG08173-02	PORTER, JOHN C IMPAIRED SECRETION BY AGING NEURONS	06-01-89	05-31-90	UNIVERSITY OF TEXAS SW MED CTR/DALLAS	228,284
R01AG08174-02	SIMPSON, EVAN R AGING AND THE REGULATION OF AROMATASE IN ADIPOSE TISSUE	06-01-89	05-31-90	UNIVERSITY OF TEXAS SW MED CTR/DALLAS	143,830
R01AG08175-02	MASON, JAMES I REGULATION OF ADRENAL C19 STEROID BIOSYNTHESIS	06-01-89	05-31-90	UNIVERSITY OF TEXAS SW MED CTR/DALLAS	123,549
R01AG08177-02	ABRAHAM, GEORGE N CLONAL B-CELL ANALYSIS IN HUMAN MONOCLONAL GAMMAPATHIES	09-01-89	08-31-90	UNIVERSITY OF ROCHESTER	167,694
R01AG08178-02	LEDDY, JOHN P PATHOGENESIS OF ERYTHROCYTE AUTOANTIBODY FORMATION	09-01-89	08-31-90	UNIVERSITY OF ROCHESTER	154,324
R01AG08179-02	ZAUDERER, MAURICE VARIABLE GENE UTILIZATION IN SPECIFIC T-CELL RESPONSES	09-01-89	08-31-90	UNIVERSITY OF ROCHESTER	117,096
R43AG08186-01A1	WADE, STEPHEN E MINIMALLY STRESSFUL MEASUREMENT OF HORMONE AVAILABILITY	09-03-89	02-28-90	HAMMERSMITH LABORATORIES, INC.	50,000

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R01AG08189-02	DAVANZO, JULIE S DEMOGRAPHIC CHANGE AND FAMILY DECISION-MAKING	07-01-89	06-30-90	RAND CORPORATION	41,034
R01AG08191-02	SCHULZE, DAN H CHARACTERIZATION AND EXPRESSION OF IG GENE FAMILIES	09-01-89	08-31-90	UNIVERSITY OF MARYLAND BALT PROF SCHOOL	136,624
R01AG08192-02	KELSOE, GARNETT H AGE'S IMMUNOLOGICAL CONSEQUENCES--ANALYSIS OF CLONES	08-01-89	07-31-90	UNIVERSITY OF MARYLAND BALT PROF SCHOOL	121,962
R01AG08193-02	CERNY, JAN AUTO-REACTIVE-IDIOTYPIC LYMPHOCYTE	08-01-89	07-31-90	UNIVERSITY OF MARYLAND BALT PROF SCHOOL	185,344
R01AG08196-02	RIGGS, ARTHUR D X-CHROMOSOME INACTIVATION AND DNA METHYLATION	07-01-89	06-30-90	BECKMAN RESEARCH INSTITUTE/CITY OF HOPE	260,326
R29AG08199-02	TURKER, MITCHELL S SOMATIC MUTATION AND AGING--A MODEL SYSTEM	07-01-89	06-30-90	UNIVERSITY OF KENTUCKY	70,611
5 R01AG08200-02	ROBAKIS, NIKOLAOS K STRUCTURE & EXPRESSION OF THE B-PROTEIN-PRECURSOR GENE	08-01-89	07-31-90	MOUNT SINAI SCHOOL OF MEDICINE	157,794
5 R01AG08201-02	TERRY, ROBERT D STRUCTURE AND FUNCTION IN ALZHEIMER'S DISEASE	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	472,685
5 R01AG08202-02	THAL, LEON J EFFECTS OF CHOLINOMIMETIC DRUGS IN DAT	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	134,979
5 R01AG08203-02	MURPHY, CLAIRE L OLFACTORY DYSFUNCTION IN ALZHEIMER'S DISEASE	08-01-89	07-31-90	SAN DIEGO STATE UNIVERSITY	27,731
5 R01AG08204-02	BUTTERS, NELSON M NEUROPATHOLOGICAL-MEMORY CORRELATES IN DAT	08-01-89	07-31-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	63,821
R01AG08205-02	SAITOH, TSUNAO MODEL UNIFYING BIOCHEMICAL LESIONS--ALZHEIMER'S DISEASE	08-03-89	07-31-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	105,955

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG08206-03	ARMSTRONG, DAVID M TRANSMITTER NEUROANATOMY IN ALZHEIMER'S DISEASE	08-01-89	07-31-90	GEORGETOWN UNIVERSITY	99,836
5 R01AG08207-03	FINKLESTEIN, SETH P FIBROBLAST GROWTH FACTORS IN THE AGING BRAIN	07-01-89	06-30-90	MASSACHUSETTS GENERAL HOSPITAL	89,836
5 R01AG08208-02	NIXON, RALPH A MOLECULAR MECHANISMS OF LATE-ONSET NEURONAL CELL DEATH	07-01-89	06-30-90	MC LEAN HOSPITAL (BELMONT, MA)	75,462
5 R01AG08209-02	ZAIN, SAYEEDA B TRANSFECTED CELL LINES	07-10-89	06-30-90	UNIVERSITY OF ROCHESTER	192,500
5 R01AG08210-02	ST GEORGE-HYSLOP, PETER IDENTIFICATION OF THE GENE CAUSING ALZHEIMER'S DISEASE	07-01-89	06-30-90	MASSACHUSETTS GENERAL HOSPITAL	69,901
1 R01AG08214-01	KAUSLER, DONALD H AGING AND RETRIEVAL PROCESSES IN ACTIVITY/ACTION MEMORY	06-05-89	05-31-90	UNIVERSITY OF MISSOURI COLUMBIA	87,707
1 R01AG08226-01	ABERNETHY, DARRELL R CALCIUM ANTAGONISTS, AGING, AND HYPERTENSION	06-01-89	05-31-90	ROGER WILLIAMS GENERAL HOSPITAL	202,405
1 R01AG08235-01	HULTSCH, DAVID F INDIVIDUAL DIFFERENCES IN MEMORY CHANGE IN THE AGED	08-01-89	07-31-90	UNIVERSITY OF VICTORIA	58,513
1 R01AG08240-01	SULLIVAN, MARK D DISABLING TINNITUS AND DEPRESSION IN THE ELDERLY	06-01-89	05-31-90	UNIVERSITY OF WASHINGTON	172,664
1 R01AG08245-01	VLASSARA, HELEN REGULATION OF TISSUE REMODELING IN AGING AND DIABETES	07-01-89	06-30-90	ROCKEFELLER UNIVERSITY	154,763
1 R37AG08270-01	JUSTER, F T SAVING, WEALTH, AND HEALTH AMONG OLDER AMERICANS	07-01-89	06-30-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	125,968
1 R13AG08274-01	GERSHON, DAVID GORDON RESEARCH CONFERENCE ON THE BIOLOGY OF AGING	04-01-89	09-30-89	GORDON RESEARCH CONFERENCES	27,500

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
5 R01AG08278-08	NIXON, RALPH A HUMAN BRAIN PROTEOLYSIS IN AGING & ALZHEIMER'S DISEASE	08-01-89	07-31-90	MC LEAN HOSPITAL (BELMONT, MA)	195,226
1 R15AG08282-01	SOTHMANN, MARK S EXERCISE, AGING, AND SULFOCONJUGATED CATECHOLAMINES	07-01-89	06-30-92	UNIVERSITY OF WISCONSIN MILWAUKEE	105,937
1 P01AG08291-01	LILLARD, LEE A SOCIAL AND ECONOMIC FUNCTIONING IN OLDER POPULATIONS	04-01-89	03-31-90	RAND CORPORATION	386,315
1 R37AG08303-01	MARTIN, GEORGE M HOMOZYGOSITY MAPPING OF THE WERNER SYNDROME LOCUS	05-02-89	04-30-90	UNIVERSITY OF WASHINGTON	200,952
1 P01AG08321-01	ZIRKIN, BARRY R AGING AND MALE REPRODUCTIVE TRACT STRUCTURE AND FUNCTION	05-01-89	04-30-90	JOHNS HOPKINS UNIVERSITY	641,408
5 R01AG08322-02	JOHNSON, THOMAS E MOLECULAR GENETIC SPECIFICATION OF AGING PROCESSES	08-01-89	07-31-90	UNIVERSITY OF COLORADO AT BOULDER	149,634
1 R01AG08327-01	KEYL, PENELOPE M EFFECTS OF ALZHEIMER'S DISEASE AND AGING ON DRIVING	05-01-89	04-30-90	JOHNS HOPKINS UNIVERSITY	204,753
1 R13AG08328-01	MARTIN, GEORGE M FAMILIAL ALZEIMER'S DISEASE	04-01-89	09-30-89	UNIVERSITY OF WASHINGTON	26,341
5 R01AG08330-02	ELLNER, JERROLD J IMMUNOSENESCENCE AND TUBERCULOSIS IN THE ELDERLY	09-01-89	08-31-90	CASE WESTERN RESERVE UNIVERSITY	218,150
1 R01AG08331-01	CLEARY, PAUL D AGE CASE-MIX PROCESS & OUTCOME IN HOSPITALIZED PATIENTS	07-01-89	06-30-90	HARVARD UNIVERSITY	139,817
1 R01AG08353-01	FOX, ROBERT A AGE-RELATED CHANGES IN THE PERCEPTION OF SPEECH	07-01-89	06-30-90	OHIO STATE UNIVERSITY	90,989
1 R15AG08359-01	AINLAY, STEPHEN C WORCESTER AREA PROJECT ON AGING	06-02-89	05-31-91	COLLEGE OF THE HOLY CROSS	109,596

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ANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R01AG08371-01	PETTEGREW, JAY W IN VIVO METABOLISM IN ALZHEIMER'S DISEASE	05-01-89	04-30-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	246,400
1 R01AG08375-01A1	AHERN, FRANK M ALCOHOL & PRESCRIPTION DRUG INTERACTION IN THE ELDERLY	01-01-89	12-31-89	PENNSYLVANIA STATE UNIVERSITY PARK	105,904
1 R01AG08377-01	RAICHLE, MARCUS E BRAIN MICROVASCULATURE IN AGING AND DEMENTIA	05-01-89	04-30-90	WASHINGTON UNIVERSITY	203,719
1 R29AG08382-01	STINE, ELIZABETH L ADULT AGE DIFFERENCES IN ONLINE PROCESSING OF DISCOURSE	05-01-89	04-30-90	BRANDEIS UNIVERSITY	90,196
1 R15AG08383-01	FONER, NANCY NURSING HOME WORKERS & PATIENT CARE: A CASE STUDY	05-02-89	04-30-92	COLLEGE AT PURCHASE	87,443
1 R29AG08387-01	COHN, BARBARA A AGE, SEX & SURVIVAL-STABILITY OF ASSOCIATIONS	04-01-89	03-31-90	CALIFORNIA PUBLIC HEALTH FOUNDATION	72,759
5 R01AG08395-02	CREWS, DOUGLAS E MULTIPLE-CAUSE MORTALITY AMONG AGING SAMOANS	09-01-89	02-28-90	NORTHWESTERN UNIVERSITY	28,398
1 R13AG08397-01	FOX, C FRED MOLECULAR BIOLOGY OF AGING	02-23-89	01-31-90	UNIVERSITY OF CALIFORNIA LOS ANGELES	20,000
1 R43AG08400-01	MACE, RONALD L AN ADAPTABLE BATHING FIXTURE FOR ELDERLY DISABLED USERS	07-01-89	02-28-90	BARRIER FREE ENVIRONMENTS, INC.	48,092
1 R43AG08401-01	WURGAFT, LEWIS D DEVELOPMENT OF A COGNITIVE SCREENING BATTERY FOR AGED	09-01-89	02-28-90	POWELL ASSOCIATES	49,19
1 R43AG08402-01	LORD, CHARLES J ACCELERATION DOSIMETER FOR PRIMARY FALL DATA RESEARCH	07-01-89	12-31-89	TRIANGLE RESEARCH AND DEVELOPMENT CORP	50,00
1 R43AG08403-01	MAUST, ANN P AGE BIAS IN JOB PERFORMANCE	07-01-89	12-31-89	RESEARCH DIMENSIONS, INC.	48,28

ANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R43AG08406-01	SCHENK, DALE B CHARACTERIZATION-AMYLOID PRECURSOR FRAGMENTS IN PLASMA	05-01-89	10-31-89	ATHENA NEUROSCIENCES, INC.	50,000
R43AG08407-01	CHURCHILL, RUSSELL J MEMORY ASSIST DEVICE TO IMPROVE PRESCRIPTION COMPLIANCE	07-01-89	12-31-89	AMERICAN RESEARCH CORP OF VIRGINIA	50,000
R43AG08408-01	MATHESON, LEONARD N PREVENTION OF DISABILITY-INDUCED RETIREMENT	07-01-89	12-31-89	EMPLOYMENT AND REHABILITATION INST/CAL	49,362
5 R01AG08409-02	WARE, JOHN E, JR PHYSICIAN-PATIENT RELATIONSHIPS/OUTCOMES OF ELDERLY	09-01-89	08-31-90	NEW ENGLAND MEDICAL CENTER HOSPITALS,INC	257,780
1 R01AG08415-01	ANCOLI-ISRAEL, SONIA SLEEP CONSOLIDATION IN A NURSING HOME POPULATION	05-01-89	04-30-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	141,565
1 R01AG08419-01	RASKIND, MURRAY A PSYCHOPATHOLOGY OF ALZHEIMER'S-PSYCHONEUROENDOCRINOLOGY	01-01-89	12-31-89	UNIVERSITY OF WASHINGTON	156,127
1 R13AG08428-01	COE, RODNEY M CARE OF THE AGED: APPLICATION OF HEALTH SERVICES RESEAR	07-01-89	06-30-90	ST. LOUIS UNIVERSITY	4,940
1 R13AG08429-01	KERTZER, DAVID I CONFERENCE ON THE HISTORICAL DEMOGRAPHY OF AGING	09-26-89	08-31-90	BOWDOIN COLLEGE	39,408
1 R01AG08436-01	EINSTEIN, GILLES O PROSPECTIVE MEMORY ACROSS THE ADULT LIFESPAN	09-01-89	08-31-90	FURMAN UNIVERSITY	65,601
1 R01AG08441-01	SCHACTER, DANIEL L AGING MEMORY	08-04-89	07-31-90	UNIVERSITY OF ARIZONA	171,640
1 R01AG08444-01	KAY, MARGUERITE M B MEMBRANE CHANGES IN NEUROLOGIC AND AGING DISEASES	07-12-89	06-30-90	TEXAS AGRI AND MECH UNIV COLLEGE STATION	113,754
1 R01AG08459-01	SOHAL, RAJINDAR S ANTIOXIDANT ENZYMES AND AGING IN TRANSGENIC DROSOPHILA	07-01-89	06-30-90	SOUTHERN METHODIST UNIVERSITY	154,621

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ANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R01AG08470-01	LANSBURY, PETER T JR AMYLOID DEPOSITION IN ALZHEIMER'S DISEASE	07-12-89	06-30-90	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	160,255
R13AG08474-01	KELLY, JEREMIAH F 1989 SUMMER INSTITUTE IN GERIATRIC MEDICINE	06-01-89	05-31-90	BOSTON UNIVERSITY	44,435
R01AG08479-01	SONSALLA, PATRICIA K DOPAMINERGIC NEUROTOXINS AND AGING	08-01-89	07-31-90	UNIV OF MED/DENT NJ-R W JOHNSON MED SCH	125,800
R01AG08481-01	RUBINSTEIN, ROBERT L MIDDLE AGED CHILD'S EXPERIENCE OF PARENTAL DEATH	09-01-89	08-31-90	PHILADELPHIA GERIATRIC CTR-FRIEDMAN HOSP	196,988
R29AG08487-01	HYMAN, BRADLEY T PATHOLOGICAL ALTERATIONS IN ALZHEIMER'S DISEASE	08-01-89	07-31-90	MASSACHUSETTS GENERAL HOSPITAL	103,382
R01AG08494-01	BLEECKER, MARGIT L BIOLOGICAL FACTORS RESPONSIBLE FOR NEUROBEHAVIORAL AGING	07-01-89	06-30-90	JOHNS HOPKINS UNIVERSITY	166,140
1 R13AG08508-01	HARRISON, DAVID E BIOLOGICAL BASIS OF SENESCENCE AND LONGEVITY	09-01-89	11-30-89	GERONTOLOGICAL SOCIETY OF AMERICA	23,685
1 R37AG08511-01	DIOKNO, ANANIAS C GERIATRIC URINARY INCONTINENCE: LONG-TERM FOLLOW-UP	07-01-89	06-30-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	387,809
1 R01AG08513-01	BOILEAU, RICHARD A FAT AND FAT-FREE BODY COMPOSITION DEVELOPMENT IN AGING	12-01-88	11-30-89	UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN	123,080
1 R01AG08514-01	GAGE, FRED H GRAFTING GENETICALLY MODIFIED CELLS TO THE BRAIN	07-01-89	06-30-90	UNIVERSITY OF CALIFORNIA SAN DIEGO	273,999
1 R01AG08521-01	MORROW, DANIEL G AGING, EXPERTISE, TEXT ORGANIZATION, AND COMPREHENSION	08-01-89	07-31-90	DECISION SYSTEMS	122,850
1 R01AG08522-01	POWELL, DONALD A ASSOCIATIVE LEARNING AND AGING	07-01-89	06-30-90	UNIVERSITY OF SOUTH CAROLINA AT COLUMBIA	55,543

NATIONAL INSTITUTE ON AGING ACTIVE GRANTS IN FY89

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R13AG08532-01	COHEN, HARVEY J AGS SUMMER WORKSHOP--GERIATRICS CLINICAL RESEARCH METHOD	07-01-89	06-30-90	DUKE UNIVERSITY	39,800
R01AG08544-01	SHERWOOD, SYLVIA MENTAL DISORDERS AMONG DELAWARE NURSING HOME PATIENTS	03-01-89	02-28-90	HEBREW REHABILITATION CENTER FOR AGED	130,953
R01AG08545-01	DALE, GEORGE L ERYTHROCYTE SENESCENCE	01-01-89	12-31-89	SCRIPPS CLINIC AND RESEARCH FOUNDATION	97,932
R01AG08549-01	BREITNER, JOHN C GENETIC EPIDEMIOLOGY ALZHEIMER DISEASE IN TWINS	08-04-89	08-31-90	DUKE UNIVERSITY	789,195
R01AG08552-01	DANIELS, CHRISTOPHER K REGULATION OF MUCOSAL IMMUNOCOMPETENCE IN THE AGING RAT	01-01-89	12-31-89	IDAHO STATE UNIVERSITY	88,486
R01AG08562-01	WILLIAMS, PAMELA TRIAL OF EPIDURAL VERSUS GENERAL ANESTHESIA	07-01-89	06-30-90	HOSPITAL FOR SPECIAL SURGERY	100,185
R29AG08568-01	FRANCIS, JOSEPH OUTCOMES OF DELIRIUM IN HOSPITALIZED ELDERLY	07-01-89	06-30-90	UNIVERSITY OF PITTSBURGH AT PITTSBURGH	83,604
R01AG08572-01	KIRSCHNER, DANIEL A ABNORMAL FIBROUS ASSEMBLIES OF ALZHEIMER'S DISEASE	08-02-89	07-31-90	CHILDREN'S HOSPITAL (BOSTON)	113,986
9 R01AG08573-07	BANDMAN, EVERETT IMMUNOBIOCHEMICAL STUDY OF MUSCLE MYOSIN ISOFORMS	01-01-89	12-31-89	UNIVERSITY OF CALIFORNIA DAVIS	188,739
1 R01AG08574-01	KAY, M M B CELLULAR & MOLECULAR BIOLOGY OF ALTERED BAND 3	05-01-89	04-30-90	TEXAS AGRI AND MECH UNIV COLLEGE STATION	68,618
1 R43AG08594-01	COHEN, DANIEL E ERFS IN AGING AND ALZHEIMER'S DISEASE	08-01-89	01-31-90	CNS, INC.	48,204
1 R43AG08595-01	FORTUNE, MARTHA OPERATIONAL DECISION MAKING--PLANNING ALZHEIMER'S CARE	09-08-89	03-07-90	HCR, INC.	50,000

RANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
R43AG08597-01	TURNER, LISA MAE AGING TRAINING IN BEHAVIORAL SCIENCES RESEARCH	08-01-89	01-31-90	TURNER ASSOCIATES	46,000
R43AG08599-01	JAKOBOVITS, EDWARD DRUG DESIGN FOR THE TREATMENT OF BLADDER INCONTINENCE	08-01-89	01-31-90	NEUREX CORPORATION	50,000
R43AG08605-01	STERNS, RONNI S VIDEO PROGRAMMING AND FORMATS TO ENHANCE OLDER ADULT FUN	07-01-89	12-14-89	EVENING STAR PRODUCTIONS OF OHIO	50,000
R43AG08613-01	DEVIN, JUDITH C BEHAVIOR MANAGEMENT OF ALZHEIMER'S FOR CAREGIVERS	07-01-89	12-31-89	MEDIUM WELL DONE	37,955
R13AG08616-01	KRONENBERG, FREDI MULTIDISCIPLINARY PERSPECTIVES ON REPRODUCTIVE AGING	07-01-89	06-30-90	NEW YORK ACADEMY OF SCIENCES	33,722
R01AG08617-01	BRENNAN, PATRICIA F SUPPORTING HOME CARE VIA A COMMUNITY COMPUTER NETWORK	09-01-89	08-31-90	CASE WESTERN RESERVE UNIVERSITY	171,041
R01AG08644-01	SPITZE, GLENNA D FAMILY STRUCTURE AND INTERGENERATIONAL RELATIONS	07-01-89	06-30-90	STATE UNIVERSITY OF NEW YORK AT ALBANY	98,082
R01AG08651-01	WOLF, DOUGLAS A INTERGENERATIONAL FAMILIES--STRUCTURE,DYNAMICS,EXCHANGES	07-01-89	06-30-90	URBAN INSTITUTE	93,672
1 R01AG08655-01	KOTLIKOFF, LAURENCE J CONSUMER BEHAVIOR, TRANSFERS, AND THE EXTENDED FAMILY	09-01-89	08-31-90	BOSTON UNIVERSITY	85,066
1 P50AG08664-01	APPEL, STANLEY H ALZHEIMER'S DISEASE RESEARCH CENTER	09-29-89	08-31-90	BAYLOR COLLEGE OF MEDICINE	745,108
1 P50AG08671-01	YOUNG, ANNE B MICHIGAN ALZHEIMER'S DISEASE RESEARCH CENTER	09-29-89	08-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	915,027
1 R29AG08674-01	ROHRER, JAMES E MENTAL ILLNESS AND OUTCOMES OF NURSING HOME CARE	05-01-89	04-30-90	UNIVERSITY OF IOWA	125,100

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET START	DATES END	INSTITUTION	TOTAL
9 R01AG08675-04	COHEN-MANSFIELD, JISKA MENTAL HEALTH AGITATION IN ELDERLY PERSON	07-01-89	06-30-90	HEBREW HOME OF GREATER WASHINGTON	118,989
1 P50AG08702-01	SHELANSKI, MICHAEL L ALZHEIMER'S DISEASE RESEARCH CENTER	09-29-89	08-31-90	COLUMBIA UNIVERSITY NEW YORK	670,337
1 R01AG08726-01	HENDRIE, HUGH C DEMENTIA SCREENING METHODS: INDIANA/NONINDIANS, MANITOBA	03-01-89	02-28-90	INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS	239,820
3 R01AG08726-01S1	HENDRIE, HUGH C DEMENTIA SCREENING METHODS: INDIANA/NONINDIANS, MANITOBA	05-17-89	02-28-90	INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS	72,366
S15AG08778-01	HIIEMAE, KAREN M SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	SYRACUSE UNIVERSITY AT SYRACUSE	30,034
S15AG08779-01	BUSBEE, DAVID L SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	TEXAS AGRICULTURAL & MECHANICAL UNIV SYS	8,800
S15AG08780-01	FINE, SAMUEL SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	NORTHEASTERN UNIVERSITY	16,018
S15AG08781-01	PERRY, NATHAN H, JR SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	UNIVERSITY OF FLORIDA	4,858
S15AG08782-01	BEAN, FRANK D SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	URBAN INSTITUTE	6,149
1 S15AG08783-01	CHEUNG, H TAK SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	ILLINOIS STATE UNIVERSITY	4,730
1 S15AG08784-01	JENSEN, JAMES SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	CALIFORNIA STATE UNIVERSITY LONG BEACH	4,730
1 S15AG08785-01	LEVIN, PETER J SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	UNIVERSITY OF SOUTH FLORIDA	4,730

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GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET DATES START	BUDGET DATES END	INSTITUTION	TOTAL
1 S15AG08786-01	AMOS, KINDA K SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	UNIVERSITY OF UTAH	4,738
1 S15AG08787-01	BROKAW, CHARLES J SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	CALIFORNIA INSTITUTE OF TECHNOLOGY	56,634
1 S15AG08788-01	LAUMANN, EDWARD O SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	UNIVERSITY OF CHICAGO	62,736
1 S15AG08789-01	BREED, MICHAEL D SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	UNIVERSITY OF COLORADO AT BOULDER	59,102
1 S15AG08790-01	WOOD, DAVID L SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	UNIVERSITY OF CALIFORNIA BERKELEY	76,882
S15AG08791-01	GULLAHORN, JEANNE E SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	STATE UNIVERSITY OF NEW YORK AT ALBANY	34,818
S15AG08792-01	DAVIS, JOSEPH M SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	MC LEAN HOSPITAL (BELMONT, MA)	40,738
S15AG08793-01	FARBER, SAUL J SMALL INSTRUMENTATION PROGRAM	09-01-89	08-31-90	NEW YORK UNIVERSITY	79,851
R01AG08794-01	DETOLEDO-MORRELL, LEYLA SYNAPTIC SUBSTRATES OF AGE-RELATED MEMORY DYSFUNCTION	06-01-89	05-31-90	RUSH-PRESBYTERIAN-ST LUKES MEDICAL CTR	148,382
P30AG08808-01	HALTER, JEFFREY B MICHIGAN GERIATRICS RESEARCH AND TRAINING CENTER	09-30-89	08-31-90	UNIVERSITY OF MICHIGAN AT ANN ARBOR	972,480
R01AG08886-01	ROBBINS, NORMAN MECHANISMS OF AGING AT THE NEUROMUSCULAR JUNCTION	05-02-89	03-31-90	CASE WESTERN RESERVE UNIVERSITY	204,384
R01AG08887-01	LASEK, RAYMOND J AGING CHANGES IN NEURONAL FUNCTION AND STRUCTURE	05-02-89	03-31-90	CASE WESTERN RESERVE UNIVERSITY	186,852

GRANT NUMBER	PRINCIPAL INVESTIGATOR TITLE	BUDGET	DATES	INSTITUTION	TOTAL
		START	END		
1 R01AG08909-01	YAAR, MINA GROWTH REGULATION OF NORMAL & MALIGNANT KERATINOCYTES	07-05-89	06-30-90	TUFTS UNIVERSITY	148,170
1 R01AG08918-01	CHRISTIAN, JOE C HUNTINGTON DISEASE: A NEUROLOGICAL MARKER OF AGING	07-01-89	06-30-90	INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS	265,829
9 R01AG08920-04	ROSENTHAL, NADIA A DEVELOPMENTAL CONTROL OF MYOSIN LIGHT CHAIN GENES	08-01-89	07-31-90	CHILDREN'S HOSPITAL (BOSTON)	187,777
1 R29AG08921-01	BORENSTEIN GRAVES, AMY ALUMINUM IN THE EPIDEMIOLOGY OF ALZHEIMER'S DISEASE	09-01-89	08-31-90	BATTELLE SEATTLE RESEARCH CENTER	94,080
9 R01AG08932-09	CAPLAN, ARNOLD I PROTEOGLYCAN SYNTHESIS DURING DEVELOPMENT AND AGING	08-01-89	07-31-90	CASE WESTERN RESERVE UNIVERSITY	182,756
1 R43AG08944-01	SHARKO, JUDITH M ASSESSMENT INSTRUMENT FOR VISION LOSS REHABILITATION	09-01-89	02-28-90	JMS VISION LOSS REHABILITATION	50,000
R01AG08945-01	MILLER, JACOB M ENDOGENOUS OPIOID SYSTEM IN AGING HUMAN & RAT CNS	09-01-89	08-31-90	NEW YORK UNIVERSITY	98,846
R29AG08969-01	SPRINGER, JOE E CNS REGENERATION--EFFECTS OF NGF-RICH TRANSPLANTS	08-01-89	07-31-90	HAHNEMANN UNIVERSITY	110,912
					169,418,436

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SOCIAL SECURITY ADMINISTRATION

PROGRAMS ADMINISTERED BY THE SOCIAL SECURITY ADMINISTRATION—FISCAL YEAR 1989

The Social Security Administration (SSA) administers the Federal old-age, survivors, and disability insurance (OASDI) program (title II of the Social Security Act). OASDI is the basic program in the United States that provides income to individuals and families when workers retire, become disabled, or die. The basic idea of the cash benefits program is that, while they are working, employees and their employers pay earmarked Social Security taxes; the self-employed also are taxed on their net earnings. Then, when earnings stop, or are reduced because of retirement in old-age, death, or disability, cash benefits are paid to partially replace the earnings that were lost. Traditionally, current taxes have largely been paid out in current benefits. Social Security taxes are deposited to the Social Security trust funds and are used only to pay Social Security benefits and administrative expenses of the program. Amounts not currently needed for these purposes are invested in interest bearing obligations of the United States. Thus current workers help to pay current benefits and, at the same time, build rights to future benefits.

SSA also administers the Supplemental Security Income (SSI) program for needy aged, blind, and disabled people (title XVI of the Social Security Act). SSI provides a federally financed floor of income for eligible individuals with limited income and resources. SSI benefits are financed from general revenues. In about 60 percent of the cases, SSI is reduced due to individuals having countable income from other sources, including Social Security benefits.

SSA shares responsibility for the black lung program with the Department of Labor. SSA is responsible, under the Federal Coal Mine Health and Safety Act, for payment of black lung benefits to coal miners and their families who applied for those benefits prior to July 1973, and for payment of black lung benefits to certain survivors of miners.

Local Social Security offices process applications for entitlement to the Medicare Program and assist individuals in filing claims for Medicare benefits. Overall Federal administrative responsibility for the Medicare Program rests with the Health Care Financing Administration, HHS.

Following is a summary of beneficiary data, selected administrative activities, precedential court decisions, and Social Security-related legislation enacted in fiscal year 1989.

I. OASDI BENEFITS AND BENEFICIARIES

At the beginning of 1989, about 95 percent of all jobs were covered under the Social Security program. It is expected that, under the present law, 96 percent of the jobs will be covered by the end of the century.

At the end of September 1989, 39 million people were receiving monthly Social Security cash benefits, compared to 38.5 million in September 1988. Of these beneficiaries, 24.2 million were retired workers, 3.5 million were dependents of retired workers, 4.1 million were disabled workers and their dependents, 7.1 million were survivors of deceased workers and about 11,000 were persons receiving special benefits for uninsured individuals who reached age 72 some years ago ("Prouty payments").[1]

The monthly amount of benefits paid for September 1989 was $19 billion, compared to $17.9 billion for September 1988. Of this amount, $14.1 billion was paid to retired workers and their dependents, $1.7 billion was paid to disabled workers and their dependents, $3.3 billion ws paid to survivors, and $1.7 million was paid to uninsured persons who reached age 72 in the past.[1]

Retired workers received an average benefit for September 1989 of $540 (up from $516 in September 1988), and disabled workers received an average benefit of $530. Retired workers newly awarded Social Security benefits for September 1989 averaged $510, while disabled workers received an average initial benefit of $541.

During the 12 months ending September 1989, $227 billion in Social Security cash benefits were paid, compared to $214 billion for the same period last year. Of that total, retired workers and their dependents received $157.7 billion, disabled workers and their dependents received $22.5 billion, survivors received $46.7 billion, and uninsured beneficiaries over age 72 received $23 million.[1]

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[1] The cost of these special benefits for aged uninsured persons are financed from general revenues, not from the Social Security trust funds.

Monthly Social Security benefits were increased by 4 percent for December 1988 (payable beginning January 1989) to reflect a corresponding increase in the Consumer Price Index (CPI). Monthly Social Security benefits were increased by 4.7 percent for December 1989 (payable beginning January 1990) to reflect a corresponding increase in the CPI.

II. SUPPLEMENTAL SECURITY INCOME BENEFITS AND BENEFICIARIES

In January 1989, SSI payment levels (like Social Security benefit amounts) were automatically adjusted to reflect a 4 percent increase in the CPI. From January through December 1989, the maximum monthly Federal SSI payment level for an individual was $368. The maximum monthly benefit for a married couple, both of whom were eligible for SSI, was $553. In January 1990, these monthly rates were increased to $386 for an individual and $579 for a couple to reflect a 4.7 percent increase in the CPI.

As of June 1989, 4.5 million aged, blind, or disabled people received Federal SSI or federally administered State supplementary payments. Of the 4.5 million recipients on the rolls during June 1989, about 2 million were aged 65 or older. Of the recipients aged 65 or older, about 557,000 were eligible to receive benefits based on blindness or disability. About 2.5 million recipients were blind or disabled and under age 65. During June 1989, Federal SSI benefits and federally administered State supplementary payments totaling a little over $1.2 billion were paid.

For fiscal year 1989, $14.3 billion in benefits (consisting of $11.4 billion in Federal funds and $2.9 billion in federally administered State supplementary payments) were paid.

III. BLACK LUNG BENEFITS AND BENEFICIARIES

Although responsibility for new black lung miner claims shifted to the Department of Labor (DOL) in July 1973, SSA continues to pay black lung benefits to a significant, but gradually declining, number of miners and survivors. (While DOL administers new claims under part C of the Federal Coal Mine Safety and Health Act, SSA is still responsible for administering part B of the Act.)

During September 1989, about 229,000 individuals (165,000 age 65 or older) received $73 million in black lung benefits which were administered by the Social Security Administration. These benefits are financed from general revenues. Of these individuals, 52,000 miners received $19 million, 124,000 widows received $45 million, and 53,000 dependents and survivors received $9 million. During fiscal year 1989 SSA administered black lung payments in the amount of $889 million; about 48,000 miners and 117,000 widows and wives were age 65 or older.

Black lung benefits increased by 4.1 percent effective January 1989 due to an automatic general benefit increase adjustment under the law. The monthly payment to a coal miner disabled by black lung disease increased from $344.80 to $358.90. The monthly benefit for a miner or widow with one dependent increased from $517.20 to $538.40 and with two dependents from $603.40 to $628.10. The maximum monthly benefit payable when there are three or more dependents increased from $689.50 to $717.80.

IV. COMMUNICATION AND SERVICES

Information Activities

Throughout 1989, the Social Security Administration's public information activities emphasized educating the public about how the program works and the value of the Social Security program to Americans of all ages. Special emphasis was also given to promoting the services available from SSA, and efforts were made to counter misleading advertising. Public information messages and materials targeted to workers and beneficiaries were designed to assure them that the program is financially sound.

SSA also continued efforts to inform the public about the services offered by the agency. One of these services is the "Personal Earnings and Benefits Estimate Statement" (PEBES), which is designed to help today's workers plan their financial futures. By completing a simple PEBES request from, today's workers can get an estimate of their future Social Security retirement benefits, along with an estimate of their disability and survivors benefits. As an added convenience to the public, the PEBES forms are also available from the Consumer Information Center in Pueblo, Colorado. Some PEBES forms were distributed by the Internal Revenue Service with supplemental tax packages requested by taxpayers.

Additional services available free of charge from SSA were also publicized. These include options such as having benefit checks deposited directly into a bank account. The expanded availability of Social Security's toll-free telephone number (1-800-2345-SSA) was also emphasized. SSA also publicized the fact that the public now has the option of making an appointment for service. Appointments help cut down on the amount of time an individual must wait for assistance and help field offices balance workloads.

Working through field offices, SSA issued media materials to alert the public about a law that requires a Social Security number for children age 2 and older who are listed as dependents on tax returns. Also, through posters, brochures, and other materials, SSA communicated the Enumeration at Birth service, with the theme, "What else does baby need?" This service allows parents to request a Social Security number for their newborn baby while still in the hospital.

SSA continued its monthly newsletter, "Information Items," which is now sent to more than 5,000 groups and organizations, all SSA field offices, and many congressional offices. A Spanish version of "Information Items" is produced quarterly and sent to nearly 300 outside groups and organizations.

In addition, SSA conducted its usual public information activities to support field administration of its programs. About 50 million English and Spanish copies of publications explaining Social Security, Supplemental Security Income, and Medicare were produced in 1989. SSA also produced public service announcements for radio and television, exhibits, and a variety of other information materials for field office use in explaining the Social Security programs to older workers and the public in general.

SSI Outreach

In 1989, SSA continued efforts to reach people who would be eligible for SSI if they would apply for it. SSA also explored new ways to reach potential SSI recipients.

In June 1989, SSA convened an outreach symposium which was attended by representatives of about 50 groups and organizations that provide services to people 65 and over and to adults and children who have disabilities. Gwendolyn S. King, Commissioner of Social Security, indentified SSI outreach as one of her key priorities immediately upon taking office. She established a task force, which developed an extensive "action plan" of both short- and long-range activities designed to increase participation in the SSI program, by:

—providing information about and promoting understanding of the SSI program;

—reaching out to individuals who are aware of the program but are reluctant to apply and working toward a more positive public perception of the program; and

—making the process of applying for SSI benefits easier.

SSA also continued to provide public information materials, as well as other support, to organizations which have contact with potential SSI eligibles. For example, following a successful outreach demonstration in El Paso, Oklahoma City and Pittsburgh in 1988, the American Association of Retired Persons expanded its outreach project to 10 cities in 1989. SSA co-sponsored one of the demonstration sites, and cooperated with the other projects. SSA provided training and public information materials to local outreach workers as well as the application and award data needed to evaluate the demonstrations.

Also, SSA has continued its coverage of the SSI program in the monthly newsletter, "Information Items."

As a part of its larger outreach strategy, SSA began development of new efforts to serve all potential populations, including disabled and blind children, including testing methods to reach them—e.g., targeted mailings.

V. PRECEDENT-SETTING COURT DECISIONS THAT AFFECT THE ELDERLY MADE DURING FISCAL YEAR 1989

Sullivan v. Everhart, et al.—Netting "Overpayments and Underpayments"

On November 27, 1989, the U.S. Supreme Court heard oral arguments in this case. In *Everhart* the Secretary is defending the policy of determining OASDI and SSI recipients' retroactive payment amounts by netting, or crediting, any "underpayments" due for a retroactive period against any "overpayments" that were made during the same period. The Secretary sought Supreme Court review of the decision of the U.S. Court of Appeals for the Tenth Circuit, by which the Court of Appeals affirmed the *Everhart* district court's ruling that netting violates the Social Security

Act's waiver of recovery of overpayment provisions. The Tenth Circuit issued its decision in October 1988.

VI. SUMMARY OF LEGISLATION ENACTED DURING FISCAL YEAR 1989 THAT AFFECTS SSA

Public Law 101-41 (H.R. 932), Puyallup Tribe of Indians Settlement Act of 1989, Signed June 21, 1989

Provides for various benefits for the Puyallup tribe as a whole and a one-time payment. Further provides that nothing in the settlement agreement shall affect the eligibility of the tribe or any of its members for any Federal benefits.

Public Law 101-56 (H.R. 2848), Computer Matching and Privacy Protection Act Amendments of 1989, Signed July 19, 1989

This Act amends P.L. 100-53 (Computer Matching and Privacy Protection Act of 1988) to delay its effective date until January 1, 1990, for matching programs in operation prior to June 1, 1989. Additionally, it required a report by each agency, before August 1, 1989, to the appropriate congressional committees and the Office of Management and Budget which identified the matching programs subject to the delayed effective date and provided a schedule for expected compliance with the requirements of P.L. 100-503.

Public Law 101-136 (H.R. 2989), Treasury, Postal Service and General Government Appropriations Act, 1990, Signed November 3, 1989

This Act contains a Social Security-related provision, effective October 1, 1990, and thereafter, that requires the Treasury Department's Financial Management Service to be fully and directly reimbursed from the Social Security Trust Funds for the costs incurred in the issuance of Social Security benefit payments. Currently, the Social Security Trust Funds reimburse the General Fund of the U.S. Treasury for these costs.

Public Law 101-166 (H.R. 3566), Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriations Act, 1990, Signed November 21, 1989

Appropriates $5.275 million for FY 1990 for SSA research and demonstration activity. The conference report states that $3.5 million of the research and demonstration appropriation is to be used for new SSI outreach activities aimed at potential elderly recipients of SSI benefits. The conferees instruct SSA to carry out this SSI outreach effort in cooperation with organizations such as the existing network of area agencies on aging and the Administration on Aging.

Both the House and Senate Committees, in their reports accompanying the FY 1990 appropriations bills, urged that the Social Security Administration be more aware of chronic fatigue syndrome in handling disability claims and that SSA take into account in its quidelines the clinical definition of chronic fatigue syndrome that the Centers for Disease Control has developed. While committee report language does not have the effect of law, it does reflect a strong congressional concern in this area.

Public Law 101-201 (S. 892), Agent Orange Settlement Payment Exclusion, Signed December 6, 1989

Excludes payments from the Agent Orange product liability settlement from income and resources in determining eligibility for the amount of benefits under any Federal or federally assisted program. (This provision differs in wording from the provision in Public Law 101-239, the Omnibus Budget Reconciliation Act of 1989, on Agent Orange in that it refers generally to Federal and federally assisted programs rather than listing specified programs.)

Public Law 101-219 (H.J. Res. 175), Palau Compact of Free Association Implementation Act, Signed December 12, 1989

Provides Palau with self-governing authority in all matters other than those affecting military security if the compact is approved by at least 75 percent of the Palauan voters. The compact does not extend any Federal or federally assisted means-tested programs to Palau. However, it does provide that services and programs of the United States could be extended to Palau in the future under agreement between the governments of Palau and the United States.

Also provides funding for Puerto Rican political parties for their use in the 1991 referendum for Puerto Rican political status—extended commonwealth, statehood, or independence.

Public Law 101-234 (H.R. 3607), Medicare Catastrophic Coverage Repeal Act of 1989, Signed December 13, 1989

Repeals many of the provisions of the Medicare Catastrophic Act of 1988 (Public Law 100-360) effective January 1, 1990. Among other changes, the legislation eliminates the monthly catastrophic coverage premium.

Public Law 101-239 (H.R. 3299), Omnibus Budget Reconciliation Act of 1989, Signed December 19, 1989

This Act contains the following Social Security-related provisions:

A. Social Security Provisions

—Eliminate the special dependency tests for child's insurance benefits in the case of children who are adopted before age 18 by retired or disabled beneficiaries.

—Extend for 1 additional year (through 1990) the present temporary provision that allows persons who appeal a cessation decision following a continuation disability review (CDR) to continue to receive benefits through the reconsideration and, if applicable, the Administrative Law Judge decision.

—Extend, for 3 years, through June 10, 1993, the authority (first enacted in section 505 of the 1980 disability amendments) to waive compliance with Social Security and Medicare benefit requirements to conduct work incentive demonstration projects.

—Authorize the correction of earnings records at any time if an amount of wages reported by an employer is less than the correct amount.

—Provide an exemption from Social Security coverage and taxes for employees who are members of religious sect opposed to coverage if the employer is either a partnership and each partner is also a sect member of a church-controlled organization which elected to be exempt from FICA taxes.

—Prohibit termination of coverage of U.S. citizens and residents employed abroad by a foreign affiliate of an American employer.

—Eliminate the "carryover" reduction in retirement and disability benefits due to receipt of reduced widow(er)s benefits prior to age 62.

—When fully effective (1999), require that annual earnings and benefit statements be sent to all contributors. For persons under age 50 a description of benefits could be sent, rather than an individualized benefit estimate.

—Increase the contribution and benefit base for 1990 to $51,300—2 percent more than estimated under present law—to take account of the rise in average wages that has occurred to certian "deferred compensation" (e.g., income tax deferred contributions to certain retirement plans under 401(k) of the Internal Revenue Code). Although deferred compensation was covered for Social Security purposes beginning in 1984, it has not been included in the average wage index used to adjust various program amounts.

Under the proposal, special transitional provisions apply for including deferred compensation in average wages for computing the contribution and benefit base for 1991 and 1992. After 1992, deferred compensation will be included in calculating the automatic adjustments of the base and of the various benefit provisions that are kept up to date with average wage levels.

—P.L. 101-239 also includes a number of tax-related changes with relatively minor impact on the Social Security programs.

B. Provisions Applicable to Both Social Security and SSI

—In making specified determinations of good cause, fault, and good faith for Social Security purposes, require the Secretary to take into account any physical, mental, educational, or linguistic limitations that the individual has.

—Require that notices be available in various forms (e.g., telephone call, certified mail) for blind Social Security applicants and beneficiaries (as already provided in the SSI program). Also, require the Secretary to report, by January 1, 1991, on the Social Security Administration's procedures for issuing notices in languages other than English and options for expanding this practice.

—Require the Secretary to maintain an up-to-date electronic record, accessible to SSA field offices through the agency's computer system, of the identities of legal representatives of all Social Security and SSI claimants. In addition, require the Secretary to include in benefit denial notices information on options for obtaining attorneys to represent the individual's interests before the agency.

—When an individual can demonstrate to the Secretary's satisfaction that he or she failed to file for Social Security benefits as a result of misinformation concerning eligibility provided by SSA after December 1982, deem the individual to have applied on the later of (1) the date the incorrect information was provided, or (2) the date the individual met all the requirements for entitlement. The amendment applies with respect to Social Security benefits for months after December 1982. A similar provision applies to the SSI program but is restricted to cases of misinformation provided on or after December 19, 1989 (the date of enactment) and for benefits for month after December 1989 (the month of enactment).

—When an individual who visits an office in response to a time-limited notice for action sent by SSA or because his or her Social Security or SSI check was lost, stolen, or not received, require the Secretary to assure that the individual receives a face-to-face interview with an SSA employee before the close of the business day.

C. SSI Provisions

—Direct SSA to conduct an ongoing program of outreach to children potentially eligible for SSI on the basis of disability or blindness.

—Permit disabled children who would be ineligible for SSI because of deemed parental income or resources but who receive Medicaid coverage under State home care plans to receive the $30 monthly personal needs allowance that would be payable if the children were institutionalized, without regard to their parents' incomes and resources.

—Continue SSI eligibility for children of U.S. Armed Forces' personnel who are U.S. citizens and who live with their parents who are on permanent duty assignments outside the United States, Puerto Rico, and the territories and possessions of the United States.

—Exclude the value of tickets for domestic travel from income if the tickets are used and not converted to cash.

—Exclude from income and resources for SSI purposes, interest and accruals on the value of agreements to purchase burial spaces that are excluded from resources.

—A married couple would be treated as separated for SSI purposes beginning with the first month after the month of separation, rather than after the sixth month as under present law.

—Bar the Secretary from establishing limits (such as the regulatory $6,000/6-percent rule) on the value of property used in a trade or business or as an employee (including the tools of a tradesperson and the machinery and livestock of a farmer) which is excludable as property essential to self-support.

—Exclude payments from a trust fund set up, pursuant to the Agent Orange product liability settlement, by manufacturers of the chemical defoliant used by the U.S. military in Vietnam from income and resources, for SSI, AFDC, Medicaid, and other specified Federal and federally assisted means-tested programs.

D. Provisions Related to SSA Programs

—Provide the option to purchase Medicare coverage during specified enrollment periods to individuals under age 65 who are no longer entitled to Social Security disability benefits and Medicare coverage because their earnings exceeded the substantial gainful activity level, but who continue to be disabled. The amount of the monthly premium will be the same as the premiums charged for Medicare's hospital insurance benefits for uninsured individuals. The provision is effective upon enactment, but provides for coverage under the hospital insurance program only for months after June 1990.

—Require the State Medicaid programs to pay, on a sliding scale, the Medicare Part A premiums for disabled individuals (1) who are eligible to purchase Medicare protection under the above provisions, (2) whose income, as determined under the SSI program, does not exceed 200 percent of the official poverty line, and (3) whose resources, as determined under the SSI rules, do not exceed twice the SSI resource limits.

OFFICE OF INSPECTOR GENERAL

INTRODUCTION

The mission of the Office of Inspector General (OIG) is to prevent and detect fraud, waste and abuse in the Department of Health and Human Services (HHS) programs and to promote efficiency and economy in its operations. It is the Inspector General's responsibility to report to the Secretary and the Congress any deficiencies or problems relating to HHS programs and to recommend corrective action, where appropriate.

As a result of a Congressional oversight initiative into disclosures of fraud and waste in Federal/State Medicaid and welfare programs, Public Law 94-505 was passed, creating the statutory Inspector General in HHS. Enacted in 1976, the law placed equal emphasis on the Inspector General's obligation to detect wrong doing and to make recommendations for changes and improvements in HHS programs.

The OIG works in a coordinated, cooperative way with other departmental components to accomplish its mission, except when the Inspector General believes that such a relationship would compromise the integrity and independence of the office. Close working relationships are established with the Social Security Administration (SSA), the Health Care Financing Administration (HCFA), the Office of Human Development Services (HDS) and the Public Health Service (PHS) and other entities with other major Federal agencies such as the Department of Justice (DOJ) and the Government Accounting Office (GAO) to maximize resources devoted to common problems. Government wide problems are addressed with other government agencies through the President's Council on Integrity and Efficiency (PCIE).

The OIG is divided into three components: the Office of Audit, the Office of Investigations, and the Office of Analysis and Inspections. The Office of Audit (OA) is responsible for conducting audit services for HHS and overseeing audit work done by others. The Office of Audit also examines the performance of HHS programs and/or its grantees and contractors in carrying out their respective responsibilities.

The Office of Investigations (OI) reviews and investigates all allegations of a potentially criminal, civil or administrative nature, involving HHS programs or beneficiaries. In addition, OI is responsible for imposing administrative sanctions, including civil monetary penalties on health care providers participating in the Medicare and Medicaid programs. Further, OI monitors the State Medicaid Fraud Control Unit program (SMFCU), which are created to improve detection and eliminate fraud in the State run Medicaid programs.

The Office of Analysis and Inspections (OAI) conducts evaluation and inspections of Department programs and operations. These are usually short-term studies designed to focus on issues of current interest to Department officials or Members of Congress which highlight a program's efficiency or effectiveness. The Immediate Office of the Inspector General is responsible for setting OIG policy and direction, handling budgetary and administrative functions, reviewing and developing legislative and regulatory proposals and carrying out public affairs and Congressional liaison responsibilities.

These audit, inspection and investigative activities focus on:

—Seeking ways to improve fiscal controls in benefit payment processes;

—Seeking ways to enhance trust fund financial management and accounting operations;

—Identifying more efficient and economical improvements in programs, procurement and service delivery, including reviews of the appropriateness of Federal payments of services provided and for the quality of care received; and

—Reducing the incidence of fraud, waste, and abuse in the Department's programs and to the Department's beneficiaries.

ACTIVITIES

Over the past 5 years the OIG has obtained over $26.9 billion in settlements, fines, restitutions, receivables and savings from its activities and implementation of its recommendations. In FY 1989, alone, these types of savings exceeded $5.6 billion. In addition, a total of 1,278 individuals and entities were convicted for engaging in crimes against HHS programs or beneficiaries and 846 health care providers and suppliers or their employees were administratively sanctioned.

In addition to our audit and investigative work, the OIG, reviewed 95 Departmental draft regulations, commented on 194 legislative proposals and testified on 14 occasions before Congressional committees.

The following are examples of OIG reviews conducted in FY 1989 that have substantial impact upon the elderly:

—*Health Care.*—Financed by the Federal Hospital Insurance Trust Fund, FY 1989 expenditures for Medicare Part A are estimated to be in excess of $58 billion to provide health care coverage for an estimated 32.6 million individuals in FY 1989, Part A (hospital insurance) provides, through direct payment for specific use, hospital insurance protection for covered services to persons 65 or older and to certain disabled persons.

Medicare Part B (supplementary medical insurance provides, through direct payments for specific use, insurance protection against most of the costs of health care to persons 65 and older and certain disabled persons who elect this coverage. The services covered are medically necessary physician services, outpatient hospital services, outpatient physical therapy, speech pathology services, and certain other medical and health services. Financed by participants and general revenues, FY 1989 expenditures for Part B are expected to exceed $37 billion.

The financial impact of the prospective payment system on hospitals, the increases in Part B expenditures the development and implementation of catastrophic health care policy, and the cost implications of changes in health care technology are and will continue to be of particular interest to the OIG.

Medicare Catastrophic Coverage Act.—Although repealed in November, 1989 the Medicare Catastrophic Coverage Act of 1988 (MCCA) represented the most sweeping change in Medicare since 1965. Under the MCCA, HHS was responsible for establishing a Medicare Drug Utilization Review (DUR) program to identify inappropriate prescribing, dispensing and use of drugs. The OIG undertook a study which examined approaches for developing a high quality DUR system. We found a widespread problem of mismedication among the older adult population due to a series of systemic weaknesses in drug prescribing and prescription filling practices. In proportion to the general population, the elderly have a significantly higher ratio of illness and death due to adverse drug reactions then the nonelderly.

Our report urged HCFA to plan for the phasing in of a comprehensive DUR program. Further, we recommended that HCFA and PHS develop DUR criteria that would serve as a national standard as well as make specific recommendations regarding the expansion of pharmacology and geriatrics curriculum in the U.S. medical schools. Finally, we recommend that the FDA expedite publication of final regulations governing approval of drugs to be marketed for the elderly. Although MCCA was repealed our study findings and recommendations are serving a catalyst for improvements in drug prescribing and prescription freezing practices as they relate to the elderly. 6

Physician Financial Arrangements.—New trends in the way health care is delivered have created a market and impetus for investment in for-profit health care. As physicians have become investors or financial partners in health care entities for which they also generate business through referrals, public examination of the potential conflicts of such arrangements has increased.

In 1988, Congress directed the OIG to report on physician ownership and compensation. The OIG found that many physicians have financial relationships with health care businesses to which they refer patients and that many health care entities are owned by referring physicians. In particular, OIG also found that patients of physicians laboratory owners received significantly more services than all Medicare patients in general. The increased utilization of clinical laboratory services alone by patients of physician-owners cost the Medicare program $28 million nationally in 1987.

The OIG recommended that HCFA pursue the necessary legislative and regulatory changes to require entities billing Medicare to disclose the names of these physician-owners and investors to the program, and to require claims submitted by these entities to contain the name and provider number of the referring physician. The HFCA concurred with this recommendation and has taken administrative action to require that claims contain the name and provider number of the ordering or referring physician. Further, the Omnibus Budget Reconciliation Act (OBRA) of 1989 provides that referrals to clinical laboratories with which a referring physician has a financial relationship will be prohibited, effective January 1, 1992.

Ophthalmology/Optometry Relationships.—At the HFCA's request, the OIG conducted a study to determine the extent to which ophthalmologists delegate post operative care to optometrists and the incidence of optometrists being reimbursed for post operative care already billed by the opthalmologist as part of a global fee.

The OIG found that a number of a post-operative days encompassed by the global fee varies by carrier, as does the percentage of the global fee allocated to surgery versus post-operative case. As a result, in some cases Medicare is making additional payments for post-operative care which would be included in the global fee by other carriers. The report also noted that opthalmologists who refer cataract surgery patients to optometrists for post-operative care receive a higher percentage of their surgical referrals from optometrists than do those who do all post-operative care themselves.

The OIG recommended that HCFA develop national guidelines covering the number of post-operative days, which may be included in a global fee and the percentage allocation of a global fee to surgery and post-operative case. The HCFA plans to address the issue of carrier variances in the structure and payment of global packages.

Sanction Support.—In recent years the Congress has vastly expanded the OIG's enforcement responsibilities. Recent authorities tend to be substantially more complicated and pertain to more sensitive issues, such as quality of care, which require highly specialized human resources.

Enactment of the Medicare and Medicaid Patient and Program Protection Act (Public Law 100-93) incorporated a wide range of authorities to exclude individuals and entities from the Medicare, Medicaid, Maternal and Child Health and Block Grants to States for Social Services programs. Exclusions can now be made for conviction of fraud against a private health insurer, obstruction of an investigation and controlled substances abuse, as well as for revocation or surrender of a health care license as a result of convictions. These authorities are in addition to the mandatory exclusion authorities for those convicted of program-related crimes or patient abuse.

During FY 1989 the OIG successfully imposed 846 sanctions, in the form of exclusions or monetary penalties, or individuals and entities for engaging in fraud or abuse of the Medicare and Medicaid programs and/or their beneficiaries.

Seat Lift Chairs.—For some time, the rapidly increasing number of Medicare claims for Seat Lift Chairs (SLCs), the aggressive marketing techniques used by suppliers and the incidence of related fraud, have been a source of concern to the OIG. Projects investigating fraud in the industry have resulted in recoveries and savings of more than $25 million over the past three years. One case alone resulted in recoveries of more than $1.78 million. An OIG inspection and audit raised basic questions about whether SLCs should be covered by Medicare at all, and if so, under what circumstances. The OIG recommended that HCFA reconsider whether SLCs meet the definition of durable medical equipment and take actions to assure more effective evaluation of current SLC claims. HCFA has developed a proposed rule which would withdraw Medicare coverage for SLC.

Social Security.—Fifty-four years ago, the Social Security Act established a national insurance system that would be financed through payroll taxes on workers and employers and would pay benefits to workers in their old age. The National Retirement, Survivors and Disability Insurance (RSDI) program, popularly called Social Security, is the largest of the Social Security Administration (SSA) programs. In FY 1989, SSA will pay almost $227 billion in these benefits to 38.9 million beneficiaries. The program is financed almost entirely through payroll taxes paid by employees, their employers and the self-employed. Benefits are distributed to retired and disabled workers, spouses, certain divorced spouses, children and disabled children of retired and disabled workers. Benefits are also provided to widows and widowers, certain surviving divorced spouses, children and dependent parents of deceased worker beneficiaries.

The Supplemental Security Income (SSI) program is a federally administered, means tested assistance program that provides a nationally uniform, federally funded floor of income for the aged, blind and disabled. Beginning January 1974, SSI replaced State and county run assistance programs for the aged, blind and disabled that were funded by a mix of Federal and State money. Federalization of assistance for these categories permitted the establishment of uniform eligibility criteria. In FY 1989, SSA will pay SSI benefits totaling $11.4 billion.

Value Lost.—An OIG inspection found that SSA will lose more than $470 million in interest to the trust funds by not having its outstanding debt of $94 million to invest until debtors become re-entitled to benefits. Moreover, the trust funds will lose over $1 billion in value during the next 20 years due to the addition of an estimated $625 million in delinquent debts from 1988 through 1997.

When an overpayment of Social Security benefits is detected, SSA requests repayment or offsets it against any current benefits. If eligibility for monthly benefits has ceased, however, and collection efforts prove to be unproductive, SSA terminates recovery action. If the debtor becomes re-entitled to monthly benefits, the overpayment will be recovered from those payments.

The OIG study determined that older debtors form a small part of the overpayment rolls, and the majority of younger debtors have the resources to repay their debts, the average of which was under $400.

Deceased Beneficiaries.—Benefits may continue to be sent to a deceased beneficiary because the person's death goes unreported to SSA or because relatives or friends deliberately conceal it from SSA. Deliberate concealment of death to gain use of such benefits constitutes fraud against SSA programs. Since the success of OIG's first computer matching project "Specter" in the early 1980s, matches of State death records against SSA beneficiary rolls have become a required mechanism for detecting this kind of fraud.

These matches result in a continuing investigative workload for OIG. During the last year, the OIG completed a joint project with the U.S. Secret Service in following up on 22 cases in which SSA and other Federal benefits payments to deceased beneficiaries were being converted to illegal use. This endeavor resulted in 23 convictions and a total of $589,000 court ordered fines and restitutions.

OFFICE OF THE SURGEON GENERAL

ACTIVITIES OF THE OFFICE OF THE SURGEON GENERAL IN AGING, FY 1989

In FY 1989, the Office of the Surgeon General has continued the activities that were begun by the March 1988 Surgeon General's Workshop on Health Promotion and Aging. We routinely receive and fill requests for the two publications that were generated by the Workshop. Staff members made several presentations at professional and aging meetings and participated in other activities that promote healthy aging in the continuing effort to implement the recommendations that came out of the Workshop.

In order to assess the success in implementing the Workshop recommendations, the Office contacted all professional groups, agencies and others who had indicated that they had planned to be involved and provided them with the report of the current status. This report was also sent to all the Workshop participants.

Through the Office of the Surgeon General, the Public Health Service (PHS) continued its work with the Administration on Aging (AoA) under the Memorandum of Understanding. Joint efforts between the PHS and the AoA strengthened the initiatives of both agencies to encourage health promotion within the elderly population.

FAMILY SUPPORT ADMINISTRATION

LOW INCOME HOME ENERGY ASSISTANCE PROGRAM

The Low Income Home Energy Assistance Program (LIHEAP) is one of six block grant programs administered within the Department of Health and Human Services (HHS). LIHEAP is administered by the Office of Community Services (OCS) in the Family Support Administration.

LIHEAP helps low income households meet the cost of home energy. The program is authorized by the Omnibus Budget Reconciliation Act of 1981, as amended by the Human Services Reauthorization Act of 1986. In fiscal year 1989 Congress appropriated $1,3832 billion for the program. Congress has appropriated $1.393 billion for LIHEAP in fiscal year 1990.

Block grants are made to States, territories, and eligible applicant Indian tribes. Grantees may provide heating assistance, cooling assistance, energy crisis intervention, and low-cost residential weatherization or other energy-related home repair to eligible households. Grantees can make payments to households with incomes not exceeding the greater of 150 percent of the poverty level, or 60 percent of the State's median income.[1] Most households in which one or more persons are receiving Aid to Families with Dependent Children, Supplemental Security Income, Food Stamps, or need-tested veterans' benefits may be regarded as categorically eligible for LIHEAP.

Low income elderly households are a major target group for energy assistance. They spend, on average, a greater portion of their income for heating costs than other low income households. Grantees are required to target outreach activities to elderly or handicapped households eligible for energy assistance. In their crisis intervention programs, grantees must provide physically infirm individuals the means to apply for assistance without leaving their homes, or the means to travel to sites where applications are accepted.

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[1] Beginning with fiscal year 1986, States are prohibited from setting income eligibility levels lower than 110 percent of the poverty level.

In fiscal year 1988, about 39 percent of households receiving assistance with heating costs included at least one person age 60 or over, as estimated by the March 1988 Current Population Survey.

OCS is a member of the National Energy and Aging Consortium, which focuses on helping older Americans cope with the impact of high energy costs and related energy concerns.

No major program and policy changes for the elderly occurred in 1989. No new initiatives commenced in 1989 or are planned for 1990 that would impact on the status of older Americans.

THE COMMUNITY SERVICES BLOCK GRANT (CSBG) AND THE ELDERLY

I. The Community Services Block Grant Act (Subtitle B, P.L. 97-35) authorizes the Office of Community Services (OCS) in the Department of Health and Human Services, to make grants to States and Indian tribes or tribal organizations. States and tribes have the authority and the flexibility to make decisions about the kinds of local projects to be supported by the State or tribe, using CSBG funds. The purposes of the CSBG program are:

> "(A) to provide a range of services and activities having a measurable and potentially major impact on causes of poverty in the community or those areas of the community where poverty is a particularly acute problem;
>
> (B) to provide activities designed to assist low-income participants including the elderly poor—
>
> (i) to secure and retain meaningful employment;
>
> (ii) to attain an adequate education;
>
> (iii) to make better use of available income;
>
> (iv) to obtain and maintain adequate housing and a suitable living environment;
>
> (v) to obtain emergency assistance through loans or grants to meet immediate and urgent individual and family needs, including the need for health services, nutritious food, housing, and employment-related assistance;
>
> (vi) to remove obstacles and solve problems which block the achievement of self-sufficiency;
>
> (vii) to achieve greater participation in the affairs of the community; and
>
> (viii) to make more effective use of other programs related to the purposes of this subtitle;
>
> (C) to provide on an emergency basis for the provision of such supplies and services, nutritious foodstuffs and related services, as may be necessary to counteract conditions of starvation and malnutrition among the poor;
>
> (D) to coordinate and establish linkages between governmental and other social services programs to assure the effective delivery of such services to low income individuals; and
>
> (E) to encourage the use of entities in the private sector of the community in efforts to ameliorate poverty in the community;" (Reference Section 675(c)(1) of P.L. 97-35).

It should be noted that although there is a specific reference to "elderly poor" in (B) above, there is no requirement that the States or tribes place special emphasis on the elderly or set aside funds to be specifically targeted on the elderly. Neither the statute nor implementing regulations include a requirement that grant recipients report on the kinds of activities paid for from CSBG funds or the types of indigent clients served. Hence, it is not possible for OCS to provide complete information on the amount of CSBG funds spent on the elderly, or the numbers of elderly, or the numbers of elderly persons served.

II. *Major Activities or Research Projects Related to Older Citizens in 1989 and 1990.*—The Office of Community Services made no major changes in program or policy related to the CSBG program in 1999. No research projects were conducted in 1989.

The Human Services Reauthorization Act of 1986 (which authorized CSBG) contained the following language: "each such evaluation shall include identifying the impact that assistance . . . has on . . . the elderly poor."

The collection of impact data activity that the Office of Community Services will conduct in fiscal year 1990.

III. Funding levels under the CSBG program for States and Indian Tribes or tribal organizations amounted to $318.63 million in fiscal year 1989. In fiscal year 1990, $323.63 million was appropriated.

OFFICE OF THE ASSISTANT SECRETARY FOR PLANNING AND EVALUATION

The Office of the Assistant Secretary for Planning and Evaluation (ASPE) serve as the principal advisor to the Secretary on policy development and/or management decisions for all population groups served by the Department, including the elderly. The long-range goal of policy research in this office is to provide factual information for use by departmental decisionmakers in the development of new policies and the modification of existing programs. This office is responsible for legislative development, planning, policy analysis, and research and evaluation oversight.

ASPE is involved in a broad range of activities related to aging policies and programs. Specific grants and contracts which include the elderly as a major focus are listed individually in this report. In addition, there are a number of research, evaluation and coordination activities which integrate aging concerns with those of other population groups. For example, the elderly are included in studies of health care delivery, poverty, State-Federal relations and public and private social service programs.

ASPE also maintains a national clearinghouse which includes aging research and evaluation materials. The ASPE Policy Information Center (PIC) provides a centalized source of information on evaluative research relevant to the Department's programs and policies. On-going and compelted HHS evaluations are tracked, compiled and retrieved. In addition, the PIC database includes ASPE policy research, the Inspector General's program inspections and reports from the General Accounting Office, Congressional Budget Office, and Office of Technology Assessment of relevance to the Department. Research studies of a short-term evaluative nature conducted by the Department were recently added. Copies of final reports of the stuides described in this statement are available upon completion from PIC.

During 1989, staff of the Office of the Assistant Secretary for Planning and Evaluation undertook or participated in the following analytic and research activities which had a major focus on the elderly:

1. POLICY DEVELOPMENT

LONG-TERM CARE AND THE UNINSURED

ASPE plays a major role in analyzing long-term care issues which cut across the major divisions of the Department. In 1989 ASPE provided key staff support to the Under Secretary's Task Froce on Access to Care. The Under Secretary has been charged with conducting a thorough review of present policies on long-term care and health care for the uninsured and underinsured, how well these policies are working on behalf of persons and health care for the uninsured and underinsured, how well these policies are working on behalf of persons who need care, and how well they may serve us in the future. The review will evaluate potential participation and costs under a broad range of financing options and is intended to contribute to the development of a set of basic goals for health care reform as well as specific policy proposal.

A report is due in October 1990.

AGING

Task Force on Alzheimer's Disease

As a member of the DHHS Council on Alzheimer's Disease, ASPE assisted in preparation of the annual report to the Congress on selected aspects of caring for persons with Alzheimer's disease. The report focused on the Department's current and planned services research initiatives on Alzheimer's Disease.

Federal Interagency Forum On Aging-Related Statistics

ASPE is a member of the Federal Interagency Forum on Aging-Related Statistics (The Forum). The Forum was established to encourage the development, collection, analysis, and dissemination of data on the older population. The Forum seeks to extend the use of limited resources among agencies through joint problems solving, identification of data gaps and improvement of the statistical information bases on the older population that is used to set the priorities of the work of individual agencies.

Departmental Coordinating Group on Aging Data

ASPE is the lead agency for the Coordinating Group whose primary responsibility is to evaluate departmental needs for data on the aging population and to develop process and policies that will guide the collection of data relevant to the aging population throughout the decade of the 1990's the data sets of interest are those funded by DHHS, those that are ongoing or likely to be included in future budgets, and those that provide information on persons 55 years of age and older.

Long-Term Care Microsimulation Model

During 1989 ASPE made extensive use of the Long-Term Financing Model developed by ICF, Inc., and the Brookings Institute. The model simulates the utilization and financing of nursing home and home care services by a nationally representative sample of elderly persons for the period 1986 to 2020. It gives the Department the capacity to simulate the effects of various financing and organizational reform options on future public and private expenditures for nursing home and home care services. Work has now begun on making the model available to the general research community.

2. RESEARCH AND DEMONSTRATION PROJECTS

DISABILITY PROFILES AND POLICY ANALYSES

Mathematics Policy Research (Contractor) and SysteMetrics/McGraw-Hill, Inc. (Subcontractor)—Patricia Doyle and Brian Burwell, Principal Investigators

Three principal policy issues affecting the disabled will be analyzed: (1) Participation in Federal programs; (2) Federal program interaction; and (3) recipient work effort. The focus will be on four major HHS programs affecting the disabled—Social Security Disability Insurance (SSDI), Supplemental Security Income (SSI), Medicare, and Medicaid. The primary source of data will be the 1983/84 panel of the Survey of Income and Program Participation (SIPP). The SIPP data will be supplemented, when necessary, with information from populations either not included in SIPP (the institutionalized) or underrepresented (disabled children).

The project will produce a series of reports on policy issues: a general description of the disabled population using differing definitions of disability; a history and description of Federal programs targeted on the disabled; program participation rates under varying eligibility scenarios; the effect of interlocking program rules; a comparison of differences between disabled persons who work and those who do not; an analysis of several special topics, such as program turnover, disability of children, or the effect of Medicaid buy-in and cost sharing mandated by the Medicare Catastrophic Coverage Act of 1988; and a final report synthesizing the findings.

Funding: Fiscal year 1988—$335,000; fiscal year 1989—$39,768.

End Date: March 1990.

AN ANALYSIS OF ASSISTANCE TO THE ELDERLY POOR UNDER THE SUPPLEMENTAL SECURITY INCOME PROGRAM

Lewin/ICF—David Kennell, Burt Barnow, and John Shiels, Principal Investigators

This project will provide: (1) An empirical description of the population aged 65 and older eligible for SSI, and those participating in the program, over a series of years dating back to the program's inception and projections of those populations up to 2020; (2) a conceptual model that explains the pattern of participation, along with an analysis of the factors that affect participation; (3) an examination of the interaction of SSI with other Government programs that serve the elderly to determine the total level of income support provided to SSI recipients when other program benefits are included; and (4) an evaluation of the adequacy of survey and program data available, and recommendations on additional statistics and research needed to evaluate Federal and State policies in the SSI area.

Funding: $128,960.

End Date: December 1989.

THE RETIREMENT EARNINGS TEST AND RETIREMENT INCENTIVES

Lewin/ICF—Alan Gustman, Principal Investigator

The Social Security Retirement Earnings Test (RET) results in the reduction of a retired individual's benefit by 50 cents for every dollar above $8,400 in 1988. This study will provide econometric estimates of how the labor supply (hours) and the retirement decision of the individuals aged 65-69 would be affected by changes in the RET. The project will also provide: (1) An analysis of the incentives for retirement implicit in various pension plans and the effects of these incentives and Social Security provisions on labor supply and the retirement decision; (2) simulation estimates of the aggregate effects of full or partial removal of the earnings test on labor supply and labor market earnings; and (3) estimates of the implicit and explicit taxes on the income of elderly and estimates of the effects of taxation, especially taxation on benefits, on the timing of acceptance of Social Security benefits.

Funding: $127,290.

End Date: December 1989.

PANEL STUDY OF INCOME DYNAMICS

University of Michigan, Institute for Social Research—James N. Morgan, Greg J. Duncan, and Martha S. Hill, Principal Investigators

Through an interagency consortium coordinated by the National Science Foundation (NSF contributes approximately $1.5 million per year), ASPE assists in the funding of the Panel Study of Income Dynamics (PSID). This is an ongoing nationally representative longitudinal survey that began in 1968 under the auspices of the Office of Economic Opportunity. The PSID has gathered information on family composition, attitudes, employment, sources of income, housing, mobility, and a host of other subjects every year since then on a sample of approximately 5,000 families and has followed all original sample members that have left home. The current sample size is over 7,000 families. The data files have been disseminated widely and are used by hundreds of researchers both within this country and in numerous foreign countries to get an accurate picture of changes in the well-being of different demographic groups including the elderly.

Funding: ASPE (and HHS precursors)—fiscal year 1967 through fiscal year 1979—$10,559,498; fiscal year 1980—$698,952; fiscal year 1981—$600,000; fiscal year 1982—$200,000; fiscal year 1983—$250,999; fiscal year 1984—$550,000; fiscal year 1985—$300,000; fiscal year 1986—$225,000; fiscal year 1987—$250,000; fiscal year 1988—$250,000; fiscal year 1989—$250,000.

SURVEY OF CONSUMER FINANCES

University of Michigan, Survey Research Center—Richard Curtin, Principal Investigator

The Survey of Consumer Finances interviewed a representative sample of U.S. families in the Spring of 1983 gathering a detailed accounting of family assets and liabilities; questioning also covered financial behavior and attitudes, work status, job history, and expected benefits from pensions and Social Security. A supplemental instrument gathered information on the pension entitlement of individuals in the sample.

Detailed descriptions of pension plans are being linked to household files.

Data from the survey are expected to be widely used for investigation of the distribution of holdings of various assets and liabilities, of net worth, and of entitlement to pension and Social Security benefits. In addition, these data will support research on financial behavior of individuals and on the effect of Social Security and pensions on the holdings of other assets.

The survey was jointly sponsored by the Board of Governors of the Federal Reserve System, the Department of Health and Human Services, the Department of the Treasury, the Federal Deposit Insurance Corporation, the Federal Trade Commission, and the Department of Labor.

The Survey Research Center completed the second wave of the survey. Follow-up telephone interviews with respondents from the first survey were conducted updating basic information from the original wave and adding new areas of questioning. Data from this wave will be available Winter 1988. A third in-person wave will be conducted in 1989 to obtain another household balance sheet for those in the original sample, supplemented by an additional sample of households.

Funding: ASPE—$1,012,096; total—$1,711,983

Funding by fiscal year: 1982—$750,000; 1983—$132,096; 1984—$130,000; 1989—$50,000; 1990—$50,000

THE EFFECT OF ECONOMIC STATUS ON THE FAMILY; THE EFFECT OF THE FAMILY ON ECONOMIC STATUS

Institute for Research on Poverty, University of Wisconsin—Sheldon Danziger and Eugene Smolensky, Principal Investigators

A research agenda of diverse but interrelated 2-year studies concerned with the relationships between poverty and family structure, labor force behavior, and welfare dependence.

Long-Run Trends in the Money Income of Children and the Elderly, 1939-85.—A comparison of the trends in the economic well-being of two dependent populations—children and the elderly. (Danziger, Peter Gottschalk, Smolensky, and William Hoyt)

Funding: Fiscal year—$86,407.

End Date: December 1989.

The Dynamics of Poverty Among the Elderly: Measurement, Duration, and Causes.—An examination of the relative role of such events as retirement, disability, or widowhood in pushing the elderly into poverty, and the role of background characteristics in preventing poverty or altering its path as people age. (Karen Holden)

Funding: Fiscal year 1989—$33,400.

End Date: December 1989.

RESEARCH TO IMPROVE THE ACCURACY OF LONG-TERM FORECASTS OF THE SOCIAL SECURITY AND MEDICARE TRUST FUNDS

Unicon Research Corporation—Finis Welch and Kevin Murphy, principal investigators

The research consists of two related projects. The first will estimate historical real wage growth using household data for the Current Population Survey for the period 1964 and 1987 and forecast future growth. The goal is to decompose past wage growth into growth in the wages of workers with fixed characteristics and changes in aggregate wage levels generated by changes in the composition of hours worked. The project will also forecast the future distribution of workers across groups (distinguished by sex, race, age, education and labor force status) which will be combined with estimated relative wage patterns to forecast the composition component of future wage growth.

The second project extends the analysis to evaluate the impact of changes in the relative earnings of husbands and wives on the solvency of the Social Security system. The goal is to provide estimates of the tax contributions and benefit payments of women eligible for both primary and spouse benefits. Although preliminary work indicates that increases in earnings and labor force participation of women will contribute to the solvency of the Social Security trust fund, the magnitude depends on how the increased earnings are distributed among those already working and previous non-participants.

Funding: Fiscal year 1989—$87,600.

End Date: June 1990.

STATISTICAL ANALYSIS, EXPERT JUDGMENT, AND LEVEL OF AGGREGATION IN DEMOGRAPHIC FORECASTS.

University of Illinois—Juha M. Alho, principal investigator

The primary objective of the research is to show how probabilistic methods can be used to calculate interval forecasts of population. The research will show how approximations to the distribution of future population vectors can be derived, and will analyze how much weight has been given to expert opinion relative to statistical analysis in the past and how it has influenced forecasting accuracy. The project will consider the level of aggregation that has been used in trust fund forecasting to see whether alternative choices would have led to different forecasts in the past.

Funding: Fiscal year 1989—$42,000.

Due Date: June 1990.

SKILL, AGE, GENDER, AND SOURCE-COUNTRY OF U.S. IMMIGRANTS

University of Colorado—Michael J. Greenwood and John M. McDowell

Changes in the number and composition of the immigrant population have important implications for immigrant earnings and thus the Social Security trust fund forecast. The proposed research has two objectives: (1) To specify and test models that relate to the source-country, skill, gender and age of U.S. immigrants, and (2) to use the resulting information in the Social Security trust fund forecasts. The models are designed so that simulations can be performed to assess the consequences of changed economic and/or political circumstances in source countries, as well as changed U.S. immigration policy.

Funding: Fiscal year 1989—$50,000.

Due Date: June 1990.

CHARACTERISTICS OF THE ELDERLY LONG-TERM CARE POPULATION AND ITS SERVICE USE

Duke University, Center for Demographic Studies—Ken Manton, Principal Investigator

The project is organized into two phases. In the first year there will be an analysis of the 1982-84 National Long-Term Care Survey and the National Long-Term Care Channeling Demonstrating data sets. The focus will be on functional transitions at advanced ages and the impacts of long-term care services on these transitions. In the second phase, additional national data bases like the Longitudinal Supplemental on Aging will be examined to refine and extend the understanding of health and functional status changes among the impaired elderly as well as trends in service use.

Funding: Fiscal year 1987—$56,933.

End Date: September 1990.

1988 NATIONAL LONG-TERM CARE SURVEY—ADDITIONAL ACTIVITIES

Duke University, Center for Demographic Studies—Ken Manton, Principal Investigator

Under a grant from the National Institute on Aging (NIA), Duke University (through the Census Bureau) is conducting the 1988 National Long-Term Care Survey. Duke will produce a data file consisting of the 1982, 1984 and 1988 surveys linked to Medicare bill records. An additional grant jointly administered by NIA and the Office of the Assistant Secretary for Planning and Evaluation will support three supplementary activities: (a) A survey of informal caregivers (b) a follow-back survey of institutionalized persons and (c) an analysis of the effects of supply factors on respondent use of services.

Funding: Fiscal year 1987—$300,000.

End Date: September 1990.

PREMIUM PRICING OF PROTOTYPE PRIVATE LONG-TERM CARE INSURANCE POLICIES

Brookings Institute—Joshua Weiner, Principal Investigator

This project will make estimates of the benefits, costs and premiums for prototype long-term care policies. It will examine the sensitivity of insurance premiums to different assumptions about age of purchase, amount of coverage, inflation, and group versus individual policies. Knowing the price of various prototype insurance policies will enable public policymakers to better assess the potential market for such insurance.

Funding: Fiscal year 1988—$100,000.

End Date: December 1989.

THE USE, COST, AND ECONOMIC BURDEN OF NURSING HOME CARE IN 1985

University of North Carolina—William Weissert, Principal Investigator

This project will compare the determinants of institutionalization for two time periods, 1977 and 1985, based on the National Nursing Home Surveys and will examine policy, supply and other variables associated with perceived differences. A product of the project will be a kit that practitioners can use to assess the probable risk of institutionalization of their clients and applicants.

Funding: Fiscal year 1988—$47,250.

End Date: January 1990.

CAREGIVER BURDEN AND INSTITUTIONALIZATION, HOSPITAL USE AND STABILITY OF CARE

University of Illinois, Baila Miller, Principal Investigator

Using the 1982 and 1984 National Long-Term Care Surveys (including the 1982 Informal Caregiver Survey component), the project will focus on the impact of caregiver burden. The study should yield policy relevant information on the relationship of different types of caregiver burdens to institutionalization. It will help focus the need for caregiver support services in the community as well as other community-based services.

Funding: Fiscal year 1988—$58,401.
End Date: December 1989.

AN ANALYSIS OF SPEND DOWN DYNAMICS IN NURSING HOMES

Connecticut Department of Health Services, Center for Health Policy and Community Relations—Christine Pattee, Principal Investigator

This project addresses in detail the issue of Medicaid spend-down, using the Connecticut Nursing Home Patient Registry, an 8-year longitudinal data file. Each record in the file contains the dates of all patient admissions and discharges, along with demographic, diagnostic and functioning level data. By using this file, it will be possible to follow the career of individual patients from first admission to a nursing home, through subsequent discharges and readmissions, until date of final discharge.

In addition to focusing on spend down, the study will analyze demograghic, utilization and outcome patterns in the patient population and changes in these patterns over time.

Funding: Fiscal year—$130,154.
End Date: February 1990.

FACTORS ASSOCIATED WITH A BREAKDOWN IN CAREGIVING AMONG INFORMAL CAREGIVERS TO THE FUNCTIONALLY AND COGNITIVELY IMPAIRED ELDERLY POPULATION

Johns Hopkins University—Donna Helm, Principal Investigator

This project will examine factors associated with the breakdown of informal caregiving to functionally and cognitively impaired persons. The National Long-Term Care Survey, Informal Caregivers Survey (1982), will be used to develop a profile of caregivers and to examine the differences in caregiver burden experienced by those who provide for the cognitively impaired versus the functionally impaired. Further, the factors contributing to a breakdown in caregiving will be identified and analyzed.

Funding: Fiscal year 1988—$50,000.
End Date: December 1989.

COMMUNITY PROGRAM SIZE AND QUALITY

Temple University, Developmental Disabilities Center—James Conroy, Principal Investigator

This project focuses on the relationship between community residential setting size and quality of care for persons with developmental disabilities. It will develop information that will help state planners understand the advantages and disadvantages of residential settings of various bed capacities. The Pennhurst Longitudinal data base will be analyzed using the size issue as the central problem to be investigated.

Funding: Fiscal year 1988—$25,324.00.
End Date: March 1990.

PROSPECTIVE OUTCOMES OF INFORMAL AND FORMAL HOME CARE: TIME TO INSTITUTIONALIZATION OR MORTALITY

People-to-People Health Foundation, Inc. (Project Hope), Center for Health Affairs—Gail Wilensky, Principal Investigator

This project is designed to determine what combinations of caregivers (e.g., paid and unpaid) are more efficacious in preventing or delaying mortality or institutionalization. The study will examine the outcomes separately for Blacks, Hispanics, and other races. If some caregiving arrangements rather than others result in improved outcomes, policymakers will be better able to target resources for home-based care where those more effective arrangements exist or can be created.

Funding: Fiscal year 1988—$48,521.00.
End Date: May 1990.

ANALYSIS AND COMPARISON OF STATE BOARD AND CARE REGULATIONS AND THEIR EFFECTS ON THE QUALITY OF CARE IN BOARD AND CARE HOMES

Research Triangle Institute—Catherine Hawes, Principal Investigator

As the nation's long-term care system evolves, more emphasis is being placed on home and community-based care as an alternative to institutional care. Community-based living arrangements for dependent populations (disabled elderly, mentally ill, persons with mental retardation/developmental disabilities) play a major role in the continuum of long-term care and disability-related services. Prominent among these arrangements are board and care homes.

There is a widespread perception in the Congress and elsewhere that too often board and care home residents are the victims of unsafe and unsanitary living conditions, abuse and neglect by operators, and fraud. There is also the perception that an increasing number of board and care residents are so disabled that they require a level of care greater than board and care operators are able to provide.

This project will analyze the impact of State regulations on the quality of care in board and care homes and document characteristics of board and care facilities, their owners and operators, and collect information on the health status, level of dependency, program participation and service needs of residents.

Funding: Fiscal year 1989—$350,000; Fiscal year 1990—$300,000.

End Date: September 1991.

INCLUSION OF LICENSED BOARD AND CARE HOMES IN THE 1991 NATIONAL HEALTH PROVIDER INVENTORY

Lewin-ICF, Inc.—Jade Gong, Principal Investigator

Community-based living arrangements for dependent populations (disabled elderly, mentally ill and mentally disabled/developmentally disabled) play major role in the continuum of long-term care and disability-related services.

For policy development, information is needed on the number and characteristics of board and care homes, the characteristics of their owners/operators and the characteristics, service use patterns and costs of their residents. A critical first step is to establish a comprehensive file of these homes. Such a file can provide basic information and also service as a sampling frame for future surveys of the board and care industry.

The purpose of this project is to develop an unduplicated listing of licensed board and care homes in all 50 States and for merging this listing into the National Health Provider Inventory which will be conducted by the National Center for Health Statistics (NCHS) in 1991.

Funding: Fiscal year 1989—$85,000.

End Date: May 1990.

POST-ACUTE CARE FOR MEDICARE PATIENTS

University of Minnesota—Robert Kane, Principal Investigator

The primary objective of this study is to describe the "natural history" of care received by patients with five different impairments (identified by DRG) in three post-acute care modalities. These modalities include home health care, skilled nursing care, and rehabilitation. This study will not only provide a history of what care was delivered in which settings, but will also assess and compare outcomes and costs of care across settings and impairments. In addition, the study will determine the factors that influence hospital discharge decisionmaking. This study's findings may then be used to construct a revised payment method for post-acute care in the Medicare program.

Two sets of data will be collected. The first set will contain information from hospital discharge records and pre and post discharge client interviews in three U.S. cities. The second set will include a 20 percent national sample of Medicare acute care discharges to be linked with the utilization files of Medicare covered services provided in post-acute care settings. Data collection has been completed, and the analysis phase is currently udnerway.

Funding: Fiscal year 1987—$500,000; Fiscal year 1988—$727,000; Fiscal year 1989—$695,335.

End Date: September 1990.

ANALYSIS OF LINKED CARRIER AND INTERMEDIARY DATA BASES

The Circle, Inc.—Peter McMiniman, Principle Investigator

The purpose of this contract is to modify an on-going contract initiated in 1987 which is developing linked A-B Medicare data in six States for the period 1983-85. The modification will add linked 1986-88 A-B data in the same States to the previously developed data base.

Funding: Fiscal year 1989—$50,000.

End Date: December 1989.

EXPANSION OF ON-GOING ANALYSIS OF PHYSICIAN VOLUME ISSUES

Center For Health Economics Research—Janet Mitchell, Principle Investigator

A ten State data base of claims for 1985 through 1988 is currently being analyzed by HCFA to explore the growth in volume and intensity in Medicare Part B during the period and to examine selected other issues in physician payment (e.g., geographic variation). This project will provide the additional resources necessary to expand and strengthen the basic analysis by adding to it a second set of data for six additional States, including the State of Pennsylvania. Because Pennsylvania is the largest and most urbanized State in the whole set, its inclusion will serve to substantially strengthen the data's utility.

Funding: Fiscal year 1989—$250,000.

End Date: February 1990.

REPLICATION OF THE 1982 STUDY OF RESOURCE COSTS IN 25 HOSPITALS

Center for Health Policy Studies—Henry Miller

In 1982, ASPE conducted a study of the resource cost required to deliver clinic and emergency room services to Medicare patients in 25 large urban hospital outpatient departments. The resources required to produce such services were found to be greater than claimed by the hospitals on their Medicare cost reports. After the implementation of PPS, hospitals had an incentive to shift costs to the outpatient side. Replicating the 1982 study (initiated with 1988 funds) will allow examination of the degree to which hospitals have acted on this incentive. In addition, the replicative study is being expanded to examine the resources required to deliver ambulatory surgical services and to compare these with the resource costs required to deliver similar services through ambulatory surgical centers in the same cities.

Funding: Fiscal year 1988—$270,000; Fiscal year 1989—$50,000.

End Date: February 1990.

EVALUATION OF AN APPROACH TO MAINTAINING THE MEDICAL CURRENCY OF RURAL PHYSICIANS AND HOSPITALS

Texas Tech—A. Bryan Spives, MD

OBRA 1987 required the Department to explore and to test the feasibility of "requiring instructions and oversight of rural physicians . . . through use of video communications between rural hospitals and teaching hospitals to maintain and improve the quality of delivered medical care, with special emphasis on Medicare beneficiaries." This activity is to be supported jointly by HCFA and PHS, with ASPE responsible for support of necessary evaluation activities. This project will support the evaluation component.

A two-part, three year effort, totalling $350 thousand in evaluation, is envisioned. The first component, internal evaluation, will be supported through partial funding of the OBRA 1987-required project(s). The second component, external evaluation, will be supported through consortium funding by PHS, HCFA, and ASPE of an independent evaluation contract.

Funding: Fiscal year 1988—$150,000; fiscal year 1989—$100,000; fiscal year 1990—$50,000.

End Date: September 1990.

MEDICARE OUTPATIENT DRUG BENEFIT: AN EVALUATION OF THE POSSIBILITY OF COVERING INVESTIGATIONAL DRUGS USED FOR TREATMENT

James Bell Associates, James Bell, Project Manager

The purpose of this study is to develop information for a report to Congress as mandated by the Medicare Catastrophic Coverage Act of 1988 (P.L. 100-60). The Congressional report will evaluate the possibility of covering certain nonapproved drugs and biological products under the outpatient portion of the Medicare program. The report will inform policy debate by providing: definitions of terms; analysis of past and current policy issues in investigational drug research, approval of administration and coverage, and a presentation and analysis of policy options. In addition, the report will identify a set of baseline data and the conceptual framework needed to evaluate such a benefit.

Funding: Fiscal year 1989—$135,000.

End Date: January 1990.

PUBLIC HEALTH SERVICE: CENTERS FOR DISEASE CONTROL

In 1989, the Centers for Disease Control (CDC) initiated activities benefiting older Americans in several areas and continued ongoing activities in numerous other areas affecting the elderly as part of our efforts to prevent disease, disability and premature death and improve the quality of life. CDC also conducted research involving unsafe unhealthy worksite exposures, many of which cause chronic diseases or conditions in older Americans.

CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION

The Combined Health Information Database (CHID)—a Public Health Service information resource—added three new subfiles during FY 1989 that pertain to aging. These subfiles include health promotion and education information on eye diseases and disorders, blood donation and transfusion, and Alzheimer's disease. CHID also contains health information on arthritis and musculoskeletal diseases, diabetes, cholesterol, high blood pressure, digestive diseases, injury prevention, and kidney and urologic diseases. Because of the nature of the subject areas, CHID is a valuable resource for health providers working with the elderly. CHID can be accessed through most library and information services. Persons who wish to access the database directly can obtain a password from MAXWELL Online, BRS Division, Latham, NY, 1-800-345-4BRS.

The Planned Approach to Community Health (PATCH) program continues to provide technical assistance to State and local health agencies. The program provides an epidemiologic framework for diagnosis community needs and implementing targeted interventions to reduce morbidity and mortality from the leading causes of death and disability. The program provides for the targeting of specific risk factors and developing interventions that are specific. At the present time, 21 communities are conducting interventions that could impact older Americans. These interventions varied from walking programs in Gage County, Nebraska, to cholesterol screening and education projects in Doddridge County, West Virginia.

Through the Association of Schools of Public Health, CDC and Yale University conducted a pilot study entitled "Modifiable Behaviors[1] Determinants of Physical Activity in Healthy Elderly Persons." This is the first study to attempt to examine factors predictive of regular physical activity participation in healthy older persons. Products have included the development and validation of a current and lifetime physical activity survey for use exclusively among an older population—the Yale Physical Activity Survey (YPAS). Sections of the YPAS have already been employed in the Yale Health and Aging Project, in order to seek associations between physical activity and selected health outcomes in the older audit and to explore the modifiable behavioral determinants of physical activity in the older adult. The results of this study will aid the development of appropriate exercise interventions for the ambulatory elderly.

CDC has collaborated with the National Institute of Public Health and Environmental Protection of the Netherlands on the statistical analysis on the association of physical activity with coronary heart disease risk factors in elderly men, using data from the Zutphen cohort of the Seven Countries Study (SCS). Additional analyses will study the association of physical activity with health status and nutritional practices. Follow-up of that cohort in 1990 will focus on the association of physical activity with physical function and morbid and mortal endpoints, 5-year activity trends, and comparisons with other cohorts of the SCS.

A variety of programs that address the health problems of elderly Americans are being conducted by the CDC-funded Prevention Center in the School of Public Health at the University of Washington. The University of Washington Prevention Center is focusing on the health of older Americans and has as its theme "Keeping Older People Healthy." One of its major projects is a health promotion program for the elderly designed to reduce their need for health care and their days of restricted activity. The project's goals are to increase physical activity, reduce excessive use of prescription drugs and alcohol, and detect and correct visual and hearing deficits. Another goal of this center is to reduce incidences of disabling falls and hip fractures by 25 percent in the elderly. Through case study, this center has learned that loss of cognitive functions (dementia) may play an important, previously unrecognized role. Due to the concern for the health of older adults, the Washington Prevention Center has also researched the effects of smoking cessation in people older than 55 years of age. The results of this study, published in *The New England Journal of Medicine* in November 1988, documents the benefits of smoking cessation in later years and shows that this dramatically reduces the risk of heart attack or death.

A large trial was recently funded to target the prevention of falls and other injuries in the elderly. Issues related to the behavorial and environmental determinants of falls in the elderly have been studied with appropriate interventions being implemented.

CDC consulted with the State of Georgia in developing and conducting training workshops for recreation department personnel on exercise and physical activity promotion for the elderly.

CDC participated in the *Surgeon General's Workshop on Health Promotion and Aging* and has written and published a summary of the proceedings for the *Morbidity and Mortality Weekly Report.*

Although the incidence of cervical cancer has declined, 6,000 deaths due to this disease occur each year, many of which could be prevented. Data from the National Health Interview Survey of Health Promotion and Disease Prevention in 1985 indicate that 73 percent of women had had a Pap smear in the previous 3 years. However, only 50 percent of women over 65 years of age had a Pap smear in the previous 3 years; 15 percent of women over 65 years of age had never had Pap smears. CDC has cooperative agreements with Kentucky, Illinois, and Georgia to identify barriers to Pap smear screening and to reduce the mortality due to cervical cancer. Interventions designated by these cooperative agreements will be targeted to older women to improve the proportion who receive regular Pap smear screening. CDC has a cooperative agreement with Oklahoma and with the Navajo Indian Health Service Area to improve a Pap smear surveillance system to design interventions based on a review of cervical cancer deaths.

Breast cancer is the major cause of cancer deaths in women and has been increasing one percent per year from 1975 to 1984. Incidence of breast cancer begins to rise at age 30 and rises dramatically with age, reaching the highest rates in women over 65 years of age. The current American Cancer Society recommendation for early detection of breast cancer is a baseline mammogram for women 35–39 years of age, screening mammograms every 1–2 years for women 40–49, and screening mammograms annually for women 50 and older. The American Cancer Society conducted a survey in 1983 that demonstrated only 41 percent of women 50 years of age and older have ever had a mammagram; only 15 percent of women have them annually. CDC has a cooperative agreement with (1) Rhode Island to evaluate their breast cancer screening program, which promotes low-cost screening mammograms for women over 40 years of age, (2) Maine to develop a comprehensive screening program that includes quality assurance and education for women and medical care providers, and (3) Colorado to develop a computerized system to ensure women's receiving regular screening mammograms and prompt diagnosis and treatment after abnormal mammograms. These programs will target older women who have the highest incidence and mortality from breast cancer.

Musculoskeletal diseases are the most prevalent chronic diseases, affecting approximately 37 million persons in the United States. From the first National Health and Nutrition Examination Survey, 40 percent of persons 65 years and older have symptomatic musculoskeletal diseases and 60 percent have clinical evidence of disease. CDC has a variety of projects in this area. Medicare hospitalization data were used to describe an unexpected north-to-south gradient in hip fracture hospitalization rates. An investigation of connective tissue diseases in south Georgia yielded preliminary evidence of an association with hair dyes. A 5-year follow-up study of serum predictors for early onset postmenopausal osteoporosis has been started in 300 perimenopausal women. Swedish data have been analyzed to describe trends in hip fracture hospitalization rates from 1965–83 and to determine hip fracture rates as a measure of osteoporosis in women with breast cancer (Estrogen-dependent cancers may reduce osteoporosis.)

Chronic neurological diseases, conditions common among the elderly, rank high in measures of morbidity, disability, family stress, and economic burden. For example, the costs exclusively due to dementias alone were estimated at $24 to $48 billion in 1985, and will increase as the population ages. However, the epidemiology of these conditions is poorly understood, so CDC has begun analyzing existing data sets and exploring the value of gathering new data on these problems. National Center for Health Statistics multiple cause-of-death data have been used to estimate the reported prevalence at death and describe the epidemiology of Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, and multiple sclerosis from 1968–85. Medicare hospitalization data were examined for information on dementing illnesses, but found to be a poor source of data for these conditions.

Through the Community Chronic Disease Prevention Program, CDC has provided assistance to three State health departments to build their capacity for designing, organizing, implementing, and evaluating behavior-based intervention activities in specific communities.

Diabetes is also a major contributor to morbidity and mortality among persons over 65. It affects 8 percent of persons over 65, 60 percent of those individuals are hospitalized every year. One quarter of all patients initiating costly end-stage renal disease treatment have diabetes, and 20 percent are over 65. Half of all amputations occur in people with diabetes, and 60 percent of those are over 65 years old. Almost half of the persons with diabetes who become blind are over 65. During 1989, CDC focused its efforts on the prevention of three major complications of diabetes which affect people over 65: blindness, amputations, and hypertension. Twenty-nine States and one territory were provided funding to address these complications. Increased emphasis on these conditions will continue in Fiscal Year 1990. Attention to the major contributions of cardiovascular disease, which accounts for 75 percent of all deaths among persons with diabetes over 65, will expand in 1990. The program continues to build consensus on effect control strategies and translating effective techniques into community practice.

CENTER FOR ENVIRONMENTAL HEALTH AND INJURY CONTROL

Several CDC Injury Research and Demonstration Grants funded in 1986 and 1989 have focused on injury prevention in the elderly. In 1986, CDC began funding a 3-year project at the Vanderbilt University School of Medicine to study the association between psychotropic and hypotensive drugs and the risk of fall-related fractures among Tennessee Medicare enrollees. The investigators have identified potential interventions for fall-related fractures by changing patterns of medication use. In 1989, CDC funded a study aimed at identifying therapeutic interventions for improving outcomes in elderly burn patients and a study that will provide a model for assessing medication-associated crash risk in the elderly. The results of projects funded in 1989 will be available over the next 2 to 3 years.

In August 1989, a multidisciplinary conference addressing the needs of the older driver was hosted by the National Institute on Aging, the Federal Highway Administration, the National Highway Traffic Safety Administration, and CDC. The conference brought together 170 specialists in such diverse areas as ophthalmology, epidemiology, gerontology, pharmacology, human factors, and highway vehicle safety and design, to present and review the latest research findings in functional areas related to driving abilities and to identify researchable issues that apply specifically to the needs of the older driver. CDC is currently helping to organize and develop documents that will summarize the proceedings and recommendations from the conference.

Other collaboration has been initiated with the Center for Chronic Disease Prevention and Health Promotion to determine the impact of glycemia control on motor vehicle-associated injury in persons with insulin-dependent diabetes.

An intramural research effort is underway that involves analyzing mortality data on suicides among United States residents over age 65. Data are being analyzed to identify high-risk groups according to demographic factors such as marital status, sex, and race.

Other specific projects funded by CDC include:

—The Florida Department of Health and Rehabilitation Services, as a part of their statewide Injury Control Program, will be examining the impact and prevention of falls in the elderly. Injuries from falls in Florida claim a disproportionate number of lives; this can be directly correlated to the large elderly population in Florida (third highest in the nation).

—An Injury Prevention and Control Program in Baltimore County is focusing on the prevention of falls in the elderly.

—A New York City program will address pedestrian injuries among the elderly in a collaborative effort with the Department of Transportation's Safety Unit and the Department of Aging.

—In New York State, as an intervention strategy for local health units, a program has been funded to develop prevention packets addressing, among other issues, home safety for the elderly. Packets will be a management tool plus health promotional resource. New York State currently is conducting an intervention project on falls in the elderly.

—In North Carolina, a program will support a Driver Medical Evaluation Program to keep medically impaired persons from driving. A high percentage of this population will be people over 65 years of age.

Other collaborative projects have been initiated with both the Philadelphia Health Department and the Indian Health Service to target injuries among inner-city Blacks and Native Americans. The special needs and risks of the elderly among these high-risk populations are being addressed by these programs.

Center for Infectious Diseases

In efforts directed towards facilities, CDC is working to define risk factors for the prevention and control of institutionally acquired infections in skilled nursing facilities (SNFs). Through a cooperative agreement, data collection for infections and infection control programs in SNFs in Connecticut was completed. The purpose of the study was to improve the prevention of nosocomial infections in SNFs by identifying infections in skilled nursing homes, associated risk factors and characterizing infection control programs in these facilities. Analysis has been completed and two manuscripts have been accepted for publication in the American Journal of Infection Control: "Infection Control Practitioners and Committees in Connecticut Skilled Nursing Facilities" and "Infection Control Practices in Connecticut's Skilled Nursing Facilities." This study demonstrated that among Connecticut SNFs, infection control practitioners increased in number and devote more time to infection control than in previous years. Almost all SNFs (97 percent) had an infection control manual, up from 69 percent in 1979. All facilities surveyed conducted prospective surveillance for infections. Most (82 percent) SNFs had programs to prevent decubitus ulcers. However, less than one-half of SNFs reported that 90 percent or more of their patients received influenza vaccine—numerous outbreaks were reported. This seems to be an area to target for improvement.

Center for Prevention Services

CDC is continuing its efforts to make adults aware of the need to be immunized against the vaccine preventable diseases of pneumococcal pneumonia, influenza, tetanus, diphtheria, hepatitis B, measles and rubella. CDC, through a contract, developed and evaluated an intervention system that included audiovisual materials and a handbook aimed at assisting local and State health departments to promote immunization of adults in the community. In addition, in collaboration with State and local health agencies, CDC distributed approximately 20,000 copies of a manual describing ways to improve the administration of influenza vaccination programs in nursing homes.

CDC featured the adult immunization theme as part of the 22nd National Immunization Conference held in San Antonio, Texas in June 1988. A number of presentations and workshops were held and over 450 participants attended. The proceedings and workshop findings will be published and distributed in 1989.

A cooperative agreement continues in effect with a health maintenance organization (HMO) trade organization to measure vaccine use and develop procedures to increase acceptance of adult vaccines by HMO subscribers.

CDC is continuing its participation with a coalition of over 50 public and private organizations to promote National Adult Immunization Awareness Week during the last week of October each year. The National Coalition for Adult Immunization (NCAI) was formed during 1988 and includes the American Academy of Family Physicians, the American College of Physicians, the American Hospital Association, the American Lung Association, the American Public Health Association, the Association of State and Territorial Health Officials, the Centers for Disease Control, the Health Insurance Association of America, the National Foundation of Infectious Diseases, and the Pharmaceutical Manufacturer's Association as a Steering Committee. Three Actions Groups have been formed to target physician and other providers for information and education messages and activities: Influenza/Pneumococcal; Measles, Mumps, Rubella; and Hepatitis B.

CDC is assisting State and local health systems in expanding immunization program coverage of adult populations through the promotion of Recommendations of the Immunization Practices Advisory Committee (ACIP) of Adult Immunization.

CDC and the Health Care Financing Administration are jointly conducting a demonstration project to determine if it is cost-effective for Medicare to cover the use of influenza vaccine. This project involves the provision and administration of influenza vaccine to Medicare part B recipients in nine sites. In 1989, the demonstration project was primarily involved in the recruitment of medicare providers to administer influenza vaccine and the development of surveillance systems to detect the presence of influenza in communities. It is anticipated that in the second year of the demonstration project, more than 50 percent of Medicare part B eligibles will be vaccinated in the nine sites. The demonstration project will last between 2 and 4 years. If the project successfully demonstrates cost-effectiveness, the coverage will become a routine covered expense under the Medicare part B program.

CDC continues to be involved in the planning and implementation of the National Vaccine Program, and has included adult immunization as one of the major components of this program. Efforts continue to be made to measure the cost and effects of adult immunization in selected target populations and these efforts will be continued in 1989.

Tuberculosis (TB) among the elderly is an important problem. During 1988, 6,092 TB cases were reported among persons age 65 and older. TB case rates among the elderly are higher than in any other age group. In 1988, the case rate for persons of all ages was 9.1 per 100,000 population while the rate for those persons age 65 and older was 20.1.

Elderly residents of nursing homes are at even higher risk for developing TB than elderly persons living in the community. According to a CDC-sponsored survey of 15,379 reported TB cases in 29 States, the incidence of TB among elderly nursing home residents was 39.2 per 100,000 person-years while the incidence of TB among elderly persons living in the community was 21.5 per 100,000 person-years. Dr. William Stead, of Arkansas, and other investigators have reported TB outbreaks in nursing homes in which transmission of tuberculous infection to residents and staff was documented.

During 1989 the HHS Advisory Committee for Elimination of Tuberculosis assisted CDC with development of specific recommendations for controlling TB among nursing home residents and employees. The recommendations, which are scheduled for publication during 1990, call for TB screeing of nursing home residents and employees at admission or upon employment, annual rescreening for employees, attention to timely casefinding among symptomatic elderly persons, and the use of appropriate precautions to prevent the spread of TB in facilities providing residential care for elderly persons.

Over the past several years, CDC has focused increased effort on determining the oral health needs of older adults within States, and on planning a national initiative to emphasize the value of oral health among older Americans. With other units of the Public Health Service (including the National Institute of Dental Research) and dental professional organizations, CDC has enegaged in early planning for this initiative.

For each of the past two years, CDC has been selected to receive assistance from a Postdoctoral Fellow in Applied Gerontology by the Gerontological Society of America. One fellow developed survey instruments that health agencies can use in conducting needs assessments; the validated instruments permit collection of standard, comparable information from older adults regarding their oral health knowledge, attitudes, and behaviors, as well as perceived benefits of dental disease preventive measures. This past summer, a second fellow determined the current status of oral health programs for older adults within States, including factors that have fostered or impeded program development, then offered recommendations regarding future directions for such programs.

NATIONAL CENTER FOR HEALTH STATISTICS

The National Center for Health Statistics (NCHS), the Federal Government's principal health statistics agency, became a Center within the Centers for Disease Control in 1987. The NCHS data systems address the full spectrum of concerns in the health field from birth to death, including overall health status, life style, the onset and diagnosis of illness and disability, and the use of health care.

The Center maintains over a dozen surveys that collect health information through personal interviews; physical examination and laboratory testing; review of hospital, nursing home, and physician records; and other means. These data systems, and the analysis and reports that follow, are designed to provide information useful to a variety of policymakers and researchers. NCHS frequently responds to requests for special analysis of date that have already been collected and solicits broad input from the health community in the design and development of its surveys.

Since most of the data systems maintained by NCHS encompass all age groups in the population, a broad range of data on the aging of the population and the resulting impact on health status and the use of health care produced. For example, NCHS data have documented the continuing rise in life expectancy and trends in mortality that are essential to making population projections. Data are collected on the extent and nature of disability and impairment, limitations on functional ability, and the use of special aids. Surveys currently examine the use of hospitals, nursing homes and physicians' offices and are being expanded to cover hospital emergency rooms, surgi-centers and home health care.

In addition to NCHS surveys of the overall population that produce information about the health of older Americans, a number of activities provide special emphasis on the aging.

A FOCAL POINT FOR DATA ON AGING

In 1989, NCHS established a focal point for data on aging by creating a position of Coordinator of Data on Aging. Joan F. Van Nostrand is the Coordinator. This focal point cuts across the Center's data systems to coordinate:

—The collection, analysis and dissemination of health data on older Americans;
—International research in data on aging; and
—Measurement research in aging in such areas as development of a uniform data set for long-term care and assessment of disability.

The Coordinator provides information to the general public about NCHS activities and data on aging Americans.

HEALTH OF AN AGING AMERICA: 1989 BIBLIOGRAPHY

NCHS has published a guide to its reports on the health of older Americans. The 1989 bibliography is a guide by subject to recent NCHS reports about various aspects of aging and the health of America's older citizens. It focuses on NCHS reports that provide indepth data on aging, whether or not they deal exclusively with older persons. Subject areas include health status, functioning, long-term care, health policy and mortality. The Bibliography is the first in a yearly series of guides to NCHS data about aging. Copies are available free of charge from the NCHS Coordinator of Data on Aging.

PROPOSED SURVEY OF THE DYNAMICS OF AGING

In response to the growing interest in longitudinal data, the NCHS has developed a proposal for a Survey of the Dynamics of Aging (SODA). SODA's intent is to produce longitudinal data on older Americans to analyze health, economic well-being and critical life events in terms of their dynamic interrelationships. SODA has a dual focus—on disability and on aging successfully. Special attention is given to health promotion issues by conducting a mini-physical examination. Specifics concerning content and methodology vis-a-vis policy and epidemiologic issues are under development in 1990.

INTERNATIONAL COLLABORATIVE EFFORT ON MEASURING THE HEALTH AND HEALTH CARE OF THE AGING

NCHS launched the International Collaborative Effort on Measuring the Health and Health Care of the Aging (abbreviated as the ICE on Aging) in 1988. The purpose of the ICE on Aging is to join with international experts in conducting research to improve the measurement of health and health care of the aging. Research results will be applied to the Center's programs to strengthen the collection, analyses and dissemination of data on older persons. The international emphasis of the research permits the exchange of multiple perspectives, approaches and insights among nations facing similar situations and challenges. Results of this collaborative effort can provide greater opportunities for comparisons and linkages of health data on aging among nations. Results will be disseminated widely to encourage their international application.

An International Symposium on Data on Aging was held in late 1988 to develop proposals for research in selected areas. In early 1989, the following research projects were approved for implementation:

—Comparative Analysis of Health Statistics for Selected Diseases Common In Older Persons: USA and Hong Kong;
—Measuring Outcomes of Nursing Home Care: USA, Australia, Canada;
—The Measurement of Vitality In Older Persons: USA and Italy;
—Health Promotion and Disease Prevention Among the Aged: USA and The Netherlands; and
—Functional Ability: USA, Canada, Hungary, Israel.

Other international collaborators need to be identified. An international Symposium for presentation of interim results is tentatively scheduled for 1991.

In 1989, NCHS issued the first *Information Update for the ICE on Aging*. It describes the project in depth. To obtain a copy and be placed on the mailing list for future updates, contact the NCHS Coordinator of Data on Aging.

STATISTICS FOR HEALTH POLICY

NCHS has taken a leading role in a jointly-sponsored project conducted by the Committee on National Statistics of the National Academy of Science. The project examined the adequacy of current statistics and identified activities to increase the relevance of health statistics for policy analysis of issues related to an aging society. A final report, *The Aging Population in the Twenty-First Century: Statistics for Health Policy,* was published in 1988. As background for the report, a dozen papers on various topics were commissioned. The background papers were published in 1989 in: Health of An Aging America: Issues on Data for Policy Analysis, *Vital and Health Statistics,* Series 4, No. 25. DHHS Pub. No. (PHS) 89-1488. These papers provide a fuller treatment of some of the issues addressed by the 1988 report.

FEDERAL FORUM ON AGING-RELATED STATISTICS

The NCHS, in conjuction with the National Institute on Aging and the Bureau of the Census, co-chairs the Federal Interagency Forum on Aging-Related Statistics. The Forum encourages communication and cooperation among Federal agencies in the collection, analysis, and dissemination of data on the older population. The Forum consists of over twenty Federal agencies that produce or analyze data on the aging population. The Forum has three standing committees: (1) Data Needs and Analytic Issues: (2) Methodological Issues; and (3) Data Presentation and Dissemination. The NCHS provides the staff support for the Standing Committee on Data Needs and Analytic Issues.

In 1989, a major focus of the Forum was on measurement of activities of daily living (ADL's). The Forum established a Work Group, co-chaired by the Executive Secretariat and the HHS Office of the Assistant Secretary for Planning and Evaluation, to determine why estimates of ADL's differed from survey to survey. In late 1989, the Forum issued a report on this subject: *Measuring the ADL's Among the Elderly: A Guide to National Surveys.* It analyzes reasons for different ADL estimates in 11 national surveys and presents estimates when a standard definition of disability is applied across surveys. Also, in 1989 the Forum:

—Released *Annual Report, 1988* detailing activities since it was convened in 1987; and

—Supported the development of *Data Resources in Gerontology: A Directory of Selected Information Vendors, Databases, and Archives* by the Gerontological Society of America.

Copies of these three reports are available from the NCHS Coordinator of Data on Aging.

NATIONAL MORTALITY FOLLOWBACK SURVEY

During 1986, data collection began for the National Mortality Followback Survey, the first such survey in 18 years. The followback survey broadens the information available on the characteristics of mortality among the population of the United States from the routine vital statistics system by making inquiry of the next of kin of a sample of decedents. Because two-thirds of all deaths in the Nation in a year occur at age 65 or older, the 1986 survey focuses on the study of health and social care provided to older decedents in the last year of life. This is a period of great concern for the individual, the family and community agencies. It is also a period of large expenditures. Agency program planning and national policy development on such issues as hospice care and home care can be enlightened by the data from the Survey. A public use data tape from the next-of-kin questionnaire was released in 1988. A second tape, combining data from the next-of-kin and hospitals and other health facilities, will be available in 1990. Several summary reports were released in 1989. The reports, which focused on the aging, were about persons dying of diseases of the heart and of cerebrovascular disease. Additional reports will be released in 1990.

NATIONAL NURSING HOME SURVEY

During 1985, NCHS conducted the national Nursing Home Survey (NNHS) to provide valuable information about older persons in nursing homes. The NNHS was first conducted in 1973–74 and again in 1977.

Preliminary data from the 1985 survey were published in 1987 and 1988 about nursing home characteristics, utilization, discharges and registered nurses. A summary report, which integrated final data from the various components of the survey, was published in January 1989. Also published in 1989 were two analytical reports, one on diagnostic related groups and one on utilization. Other analytical reports on various topics will be published during 1990 and 1991. Public-use computer tapes are available through the National Technical Information Service.

NATIONAL NURSING HOME SURVEY FOLLOWUP

The National Nursing Home Survey Followup (NNHSF) is a longitudinal study which follows the cohort of current residents and discharged residents sampled from the 1985 NNHS described above. The NNHSF builds on the data collected for the 1985 NNHS by extending the period of observation by approximately 3 years. Two waves of data collection have been completed. Wave I was conducted from August through November 1987. Wave II was conducted in the fall of 1988. Public-use data tapes for Waves I and II will be available in 1990. Wave III will begin in January of 1990. The study is a collaborative project between NCHS, HHS and the National Institute on Aging (NIA). The Followup was funded primarily by NIA and was developed and conducted by NCHS.

The NNHSF interviews were conducted using a computer-assisted telephone interview system. Questions concerning vital status, nursing home and hospital utilization since the last contact, current living arrangements, Medicare number, and source of payment were asked. Respondents included subjects, proxies, and staff of nursing homes.

The NNHSF will provide data on the flow of persons in and out of long-term care facilities and hospitals. These utilization profiles will also be examined in relation to information on the resident, the nursing home and the community.

LONGITUDINAL STUDY ON AGING

In 1984 a large supplement, the Supplement on Aging, was added to the National Health Interview Survey. The Supplement on Aging was used to obtain information about 16,148 people age 55 and over living in the community. The focus was on housing, including barriers and ownership; support, including number and nearness of living children and recent contacts in the community; retirement, including reasons for retirement and sources of retirement income; and measures of disability, including activities of daily living, instrumental activities of daily living, and ability to perform work-related activities.

The 1984 Supplement on Aging was designed to be the basis of prospective studies. The first of these is the Longitudinal Study on Aging (LSOA), a collaborative project of the National Institute on Aging and the NCHS. The first version of the public-use data file was released in July 1987. This file contains information for 1984 from the National Health Interview Survey basic questionnaire, the Supplement on Aging, and the Health Insurance Supplement; information from the 1986 re-interview; and the National Death Index (NDI) match information for 1984 and 1985. It also contains a description of the study and the questionnaires. It is available from the Division of Health Interview Statistics and the National Archives of Computerized Data on Aging.

Version 2 of the LSOA file was released in 1988. All data on version 1 of the person file (the 1987 release) are retained without change. Additional data on the person file included results of the 1986 NDI match, results of the decedent followback survey, coding of the reasons for moves and whether moves were across State lines, and indicators for matches with HCFA files.

Two additional files have been added in the 1988 release. One is the Medicare Part A match. There is one record for each hospitalization from 1984 through 1987. The other is the Medicare Part A and B match for non-hospital use. It contains indicators for each year on whether the individual has used one of four out-of-hospital services.

The participants in the 1984 survey who were age 70 and over in 1984 were interviewed again in 1988 using computer-assisted telephone interviewing and mail followup. Data from this interview and from the matches with Medicare and NDI files will be on the Version 3 release in 1990. The third reinterview will be conducted in 1990.

DATA FOR ANALYSIS OF SECULAR TRENDS

From 1969 through 1981, the procedures and questions for the basic questionnaire of the National Health Interview Survey remained relatively constant. The National Institute on Aging and NCHS have taken advantage of this long series of repeated questions to develop a historical file for the analysis of secular trends. This public-use file is a unique resource for looking at secular change or investigating the health status of older persons when they were younger. It is available through the

Division of Health Interview Statistics and the National Archive of Computerized Data on Aging.

The descriptions of the procedures and the questionnaires have been published by the National Center for Health Statistics in *Vital and Health Statistics* Series 1 No. 18 (Health Interview Survey Design, 1973-84, and Procedures 1975-1983). Questionnaires and basic data have also been published in *Vital and Health Statistics* Series 10 (Current Estimates).

NATIONAL HEALTH AND NUTRITION EXAMINATION SURVEY III

The National Health and Nutrition Examination Survey (NHANES) provides valuable information available only through direct physical examinations of a probability sample of the population. The third cycle of this survey, NHANES III, went into the field in 1988. NHANES III will provide a unique data base for older persons, as a number of important methodologic changes have been made in the survey structure. There is no upper age limit (previous surveys had an age limit of 74 years), and the sample will be selected to include approximately 1,300 persons aged 80 or older. The focus of the survey includes many of the major chronic diseases of aging which cause morbidity and mortality including cardiovascular disease, osteoarthritis, osteoporosis, pulmonary disease, dental disease, and diabetes.

In addition to the focus on nutrition, information on social, cognitive, and physical function is incorporated into the survey. A home examination will be available for those unable or unwilling to come to the central examination site, the Mobile Examination Center. It is planned that longitudinal followup of persons in the survey will be accomplished (including links to administrative records such as Medicare information and the National Death Index) and a specimen bank will be established. The major activity in 1989 was the fielding of the survey. A conference is planned for 1990 on approaches to analysis of the survey's nutrition data on the elderly.

NHANES I EPIDEMIOLOGIC FOLLOWUP SURVEY

The first NHANES (NHANES I) was conducted in the period 1971-75. The NHANES I Epidemiologic Followup Survey, conducted by NCHS over the last several years, tracks and reinterviews the more than 14,000 persons examined as part of the NHANES I study. The main objective of the followup is to relate baseline characteristics to subsequent morbidity and mortality. While persons examined in NHANES I were all under age 75, by 1986 more than 2,000 of these individuals were over 75, providing a valuable study group to examine the aging process. Persons age 55 and over at baseline were interviewed in 1986 and the entire surviving cohort was recontacted in 1987 to further study mortality, institutionalization, health status, and functioning. And additional wave of followup is scheduled for 1991. Future plans include monitoring the deaths in this population.

IMPROVING QUESTIONS ON FUNCTIONAL LIMITATIONS

The National Laboratory for Collaborative Research in Cognitive and Survey Measurement of NCHS is currently condicting cognitive interviews with old (65-74), very old (75-84), and oldest (85+) respondents. The objective is to test the adequacy of existing survey questions for collecting information on functional limitations (e.g., limitations on bathing, dressing, transferring, etc.). Pending funding, a field experiment is anticipated in 1990 to test the "functional limitation" survey questions for the "oldest" respondents.

OFFICE OF DISEASE PREVENTION AND HEALTH PROMOTION

The Office of Disease Prevention and Health Promotion (ODPHP) was established by Public Law 94-317, the National Consumer Health Information and Health Promotion Act of 1976, and functions under the provisions of Title XVII of the Public Health Service Act, as amended. Located within the Office of the Assistant Secretary for Health, at the U.S. Department of Health and Human Services (DHHS), the mission of ODPHP is to help promote health and prevent disease among Americans. The Office undertakes this mandate by developing prevention policy; coordinating and facilitating the prevention activities of the five principal agencies of the PHS; and helping to stimulate and foster the involvement of non-Federal groups in disease prevention and health promotion activities.

At the turn of the century, infectious diseases were the leading killers. Now, nearly half of all diseases and premature deaths can be traced to lifestyle factors such as smoking, improper diet, and lack of exercise. Identifying which behaviors, practices and habits enhance or threaten health, and encouraging the adoption of healthy behaviors, carries great potential for preventing disease and disability in all age groups, including the elderly.

Between 1950 and 1985 (provisional data), there was an 18 percent drop in the age-adjusted mortality rate for older adults. Much of this decrease is a result of the decline in death rates for two of the three leading causes of death for this age group—a 39 percent decline between 1950 and 1985 for stroke, and a 24 percent decline for diseases of the heart. In 1950, diseases of the heart accounted for 45.6 percent of the deaths of older Americans; in 1985, the percentage was 42.5. Stroke in 1950 accounted for 14.7 percent of older adult deaths; in 1985, the percentage was 9. Cancer has increased from 13.7 percent of deaths for this age group in 1950 to 20.2 percent in 1985. Cancer death rates have steadily increased since 1950, in part reflecting an increase in lung cancer among women, which in turn is associated with the increased prevalence of cigarette smoking among women.

The leading chronic health problems afflicting older adults—arthritis, hypertension, hearing loss, visual loss, and heart problems—also are conditions with the potential, in many cases, to respond to exercise, healthy diet, and early care.

Improving the quality of life for older Americans is a major goal of prevention programs that target the 65 and older population. ODPHP activities which address health promotion and disease prevention for older adults are as follows:

HEALTH OBJECTIVES FOR AN AGING NATION

ODPHP is responsible for monitoring progress toward meeting the 226 disease prevention and health promotion objectives for the year 1990, adopted in 1980, and establishing a new set of objectives for the year 2000. Beginning with a series of public hearings held nationwide in 1987-88, ODPHP has been engaged in the development of national objectives that represent a consensus among public and private agencies and organizations about the priority prevention issues which need to be addressed over the next decade.

One of the special populations being targeted for improvements in health status over the next decade is the older population. Recognizing that it is not enough to simply extend life, a major goal will be to maintain health and improve the quality of later life. A public draft of the new objectives was disseminated in November 1989, and the release of the final set of objectives is scheduled for September 1990. ODPHP has awarded a cooperative agreement to the American Association of Retired Persons to stimulate activitives that will help us achieve those objectives aimed at older adults.

GUIDE TO CLINICAL PREVENTIVE SERVICES

The U.S. Preventive Services Task Force, another activity coordinated by ODPHP, released recommendations in March on the effectiveness of over 100 clinical interventions for the prevention of 60 diseases and conditions. The *Guide to Clinical Preventive Services* was the result of a 5-year effort by a 20 member, non-Federal panel appointed by the Assistant Secretary for Health in 1984. The charge of the Task Force was to develop age and risk factor-specific recommendations for the delivery of preventive services in the clinical setting. Specific recommendations are made for people age 65 and older. Four types of interventions are identified as appropriate in the clinical setting: screenings, counseling, immunizations, and chemoprophylaxis.

FOOD AND DRUG ADMINISTRATION

As the percentage of elderly in the Nation's population continues to increase the Food and Drug Administation (FDA) has been giving increasing attention to the elderly in the programs developed and implemented by the Agency. FDA has been focusing on several areas for the elderly that fall under its responsibility in the regulation of foods, drugs and medical devices. Efforts in education, labeling, drug testing, drug utilization, and adverse reactions have been of primary interest. Close relationships have been established with both the National Institute on Aging and the Administration on Aging of the Department of Health and Human Services to further strengthen programs that will assist the elderly in their medical care. Some of the major initiatives that are underway are described below.

PATIENT EDUCATION

To further the goals established by the joint Public Health Service/Administration on Aging Committee on Health Promotion for the Elderly, during the last 8 years FDA has coordinated the development and implementation of significant patient education programs with the National Council on Patient Information and

Education (NCPIE) and many private sector organizations. NCPIE is a nongovernmental group consisting of medical pharmacy, consumer, and pharmaceutical organizations whose goal is to stimulate patient education program development. Special emphasis has been placed on the elderly, who use more prescription drugs per capita than the rest of population.

The "Get the Answers" campaign is the primary program urging patients to ask their health professionals questions about their prescriptions. The major component of the campaign is a medical data wallet card that lists the five questions patients should ask when they get a prescription. These questions are:

—What is the name of the drug and what is it supposed to do?
—How and when do I take it—and for how long?
—What foods, drinks, other medicines, or activities should I avoid while taking this drug?
—Are there any side effects, and what do I do if they occur?
—Is there any written information available about the drug?

The "Get the Answers" message has been widely disseminated to consumers through news releases advice columns, and other media.

In October 1986 FDA and NCPIE joined in a press conference to launch the first national "Talk About Prescriptions" month. The purpose of the month was to stimulate activity to motivate health professionals to give—and consumers to seek—the information needed for safe and effective medication use. The campaign theme—"The Other Drug Problem"—resulted in extensive media coverage. Numerous organizations across the country conducted educational activities in support of the campaign. The "Talk About Prescriptions" month campaign was so successful that NCPIE decided to make it an annual event.

The second "Talk About Prescriptions" month held in October 1987, emphasized the problem of improper medication use among the elderly. At the press conference to kick off the month, NCPIE officially released their report on improper medication use among older people and announced a new public education campaign to improve communications between health professionals and the elderly.

The public education campaign consisted of: a 30-second TV public service announcement (PSA), a 30-second radio PSA, a four-color brochure and print ads for consumer and professional publications. The campaign focused on effective communication between the older patient and the health care professional as the way to reduce medication misuse. Media materials—using the slogan "Before You Take It, Talk About It"—urged older consumers to talk with doctors, pharmacists, and nurses about the medicines prescribed for them.

NCPIE has received a 20 percent reply rate on bounceback cards from television stations reporting how often they used the spots and commenting on the quality of the ad. A professional analysis of these bounceback card responses indicated the spots were well-received by a great majority of respondents. The bounceback cards NCPIE received in response to the radio PSAs indicated a high degree of satisfaction and that some radio stations preferred to have their radio personnel read PSAs. As a result, in 1988 NCPIE mailed scripts to 1,000 radio stations and to the major radio networks.

The third "Talk About Prescriptions" month occurred in October 1988. The campaign newsletter included an article entitled "Meeting Older Patients' Medication Needs at Home" and information on obtaining resource material designed for older consumer. FDA distributed the "Talk About Prescriptions" month campaign newsletter to its newsletter editor network and several thousand consumers and multiplier organizations asking that they conduct educational campaigns.

As an outgrowth of the "Talk About Prescriptions" month program, the District of Columbia launched a city-wide campaign in October 1988 to educate older people and health providers about the safe use of medicine. The campaign ran for 6 months and targeted over 80,000 senior citizens living in the District who were reached through direct mail, community workshops, and media activities.

Material for the 1989 "Talk About Prescriptions" month campaign included articles entitled "Medicine Misuse Among Older People: New Evidence of a Significant Problem" and "Working With Older Patients to Improve Medicine Use." It also included a clip and copy page entitled "Helping Your Independent Older Parents Use Medicines Safely" as well as a section on resources available "especially for the older consumer."

FDA issued an FY 1989 assignment to the field Consumer Affairs Officers to conduct Patient Education Forums to discuss the problems of prescription medication misuse and to plan the October 1989 "Talk About Prescriptions" month campaign. One of the main target audiences for these forums is organizations that work with the elderly.

Concurrent with the activities aimed at patients, FDA, NCPIE and many private sector organizations are conducting a major campaign to encourage health professionals to provide drug information to their patients. Urging consumers to "Get the Answers" and health professionals to "Give the Answers" is vital to bridge the communications gap—to get both sides to talk to each other about medications.

In addition to patient education initiatives FDA and NCPIE are continuing to evaluate the effectiveness of patient education programs and are monitoring the attitudes and behavior of consumers and health professionals about patient drug information. FDA is encouraged by the number and quality of patient education activites undertaken by the various sectors. FDA will continue to provide leadership to foster the patient education initiative.

PREMARKET TESTING GUIDELINES

A specific guideline for the premarket testing of drugs likely to be used in the elderly is currently being reviewed by FDA. The guideline will address issues such as the extent to which drug trials should include elderly patients to help identify dosage regimens and other factors that need to be considered. Although use of a guideline is not a legal requirement, a person may be assured that in following a guideline the recommended procedures and standards will be acceptable to FDA. FDA expects its new guideline on "Use of Drugs in the Elderly" will be published in the new future. In addition, in October 1988, FDA published a Guideline for the Format and Content of the Clinical and Statistical Sections of a New Drug Application which emphasizes the need to analyze data to search for differences in effectiveness and adverse effects between younger and older patients and to evaluate effects of altered kidney or liver function, other drugs, and other illnesses, all highly pertinent to the elderly.

FDA's efforts to ensure that premarket testing adequately considers the needs of older people also include educational activities for Institutional Review Boards (IRB) through workshops and the dissemination of information sheets on a variety of topics of interest to IRBs. An IRB governs the review and conduct of all human research at a particular institution involving products regulated by FDA. This aspect of drug testing and research is particularly important to institutional patients, a category comprised of a large number of elderly persons, to ensure adequate protection with regard to informed consent. FDA continues to work closely with the National Institutes of Health to develop and distribute information sheets to clinical investigators and members of the IRB community.

POSTMARKETING SURVEILLANCE AND EPIDEMIOLOGY

In the area of postmarketing surveillance and epidemiology, the Office of Epidemiology and Biostatistics has introduced a section of the annual adverse drug reaction report focusing on adverse reaction reports for individuals over the age of 60. Of the approximately 50,000 adverse reaction reports FDA received in 1988 about 20,508 had age and sex reported. Of these reports 35 percent were associated with individuals 60 years of age or over. In addition to annual review ADR reports associated with the elderly, we have also examined drug use patterns using information obtained from IMS America, Ltd. and Pharmaceutical Data Services. In 1988, the five most frequently dispensed drugs to hospitalized patients age 65 years or older were acetaminophen, potassium chloride furosemide, digoxin and calcium carbonate/magnesium hydroxide/aluminum hydroxide. The top five ranked drugs as written by physicians in a nonhospital setting for patients age 65 or over were Lasix^{R}, Lanoxin^{R}, aspirin, potassium, and Dyazide^{R}.

GERIATRIC LABELING

From March through May of 1988, FDA's Drug Labeling, Research and Education Branch (DLREB) conducted a survey of the professional labeling of some 425 selected drugs for geriatric information. The survey drugs were chosen from data bases such as the National Disease and Therapeutic Index (NDTI) which list agents commonly used in the elderly. Half (212) of the products surveyed contained geriatric information. The drug classes with the greatest number of agents with geriatric information included the central nervous system agents (89 percent), gastrointestinal/genitourinary agents (79 percent), antiarthritic agents (77 percent), hypoglycemic drugs (75 percent), and respiratory agents (70 percent). The classes with the least amount of geriatric labeling were the glaucoma agents (15 percent) antihistamine/cold products (25 percent), cardiovascular agents (26 percent) and anticiotics (31 percent). Final analysis of the data will be completed by December 1989 and a first draft should be completed by March 1990. After allowing sufficient time for internal review, submission to a journal is expected.

To ensure that all prescription drugs contain useful information about drug use in the elderly, FDA is developing a proposal to require that labeling for prescription drugs describe all available information on geriatric drug use. This information would be based on results from controlled clinical studies and also on other pertinent premarketing or postmarketing studies or experience. Such information would be identified in a new "geriatric use" section and described under other appropriate sections of physician labeling. It should be noted that the proposed rule would not require manufacturers to conduct new studies of products in the elderly.

Activities With the AARP Pharmacy Services Division

MEDICATION INFORMATION LEAFLETS (MILS) FOR SENIORS

The American Association of Retired Persons (AARP) Pharmacy Services Division, in conjunction with FDA's Drug Labeling, Research and Education Branch (DLREB), publish MILs—educational leaflets about drugs written for use through the AARP prescription drug mail order program. This past year MILs were written for the following classes of drugs: nonsteroidal anti-inflammatory drugs, beta-blockers beta-blocker/thiazide combination drugs, and potassium-sparing diuretics and hydrochlorothiazide combination drugs. Additionally MILs were revised for several agents including: warafrin, belladonna alkaloids and barbiturates, isosorbide dinitrate sulfamethoxazole and trimethoprim, quinidine prazosin, clofibrate sucralfate and pentoxifylline. The leaflets provide the patient with:

—a description of the contents.
—a list of the diseases for which the drug is used as a treatment.
—information the patient should tell the physician before taking the medication.
—dosage information—how the medication should be taken.
—instructions on what to do if a dose is missed.
—possible interactions with other medications.
—possible serious and non-serious side effects.

HYPERTENSION SURVEY

The FDA is designing a survey to assess information needs and motivations of subgroups of older individuals with hypertension who subscribe to the AARP Pharmacy Service. Analyses will identify targeted sub-audiences who would be expected to respond differentially to varying health promotion message strategies. The study design instrument development and pretest are to be completed by March 1990. The data collection should be completed by August 1990. Data analysis should be completed and manuscript development should be initiated by November 1990.

PRESCRIPTION DRUG HANDBOOK

The FDA will be assisting in the revising and editing of the *AARP Pharmacy Service Prescription Drug Handbook*. The FDA's role in revising and editing the handbook should be completed by December 1989. AARP expects to take the handbook to press by December 1990.

Drug Interaction Brochure

In conjunction with the National Consumer's League (NCL), and other pharmacy-related private organizations, the FDA is writing a brochure about drug interactions aimed mainly at the elderly consumer. This brochure will explain to elderly consumers what drug interactions are, how to recognize them, and how to avoid them. The brochure is expected to be in final form by February 1990, and NCL expects to publish the brochure by July 1990.

Generic Drugs

The elderly in our population, as users of more medications than any other group, benefit greatly from the wide availability of generic drugs that generally cost much less than their brand name counterparts.

Landmark legislation, the Drug Price Competition and Patent Term Restoration Act of 1984, established an abbreviated procedure for FDA's review of marketing applications for a new class of generic drugs that exempts them from expensive retesting for safety and effectiveness.

This testing was conducted originally for the brand-name drug and is thus not regarded as necessary for the generic copy. By lifting this testing requirement, the

1984 Act removed a major roadblock to the development of generics. Since enactment of the 1984 law, FDA has approved about 2,500 applications for generic drugs. During the past 12 months, approximately 299 abbreviated new drug applications have been approved. By comparison, before the 1984 law, the average annual rate of approvals was about 350 generic products. According to trade groups, generic drug sales are expanding about 14 percent a year. FDA will continue to examine the impact of advertising, labeling, and education efforts on the elderly as more generic drug products are made available in the marketplace.

In September 1986 the Commissioner of FDA chaired a public workshop to review various topics associated with designing and conducting studies that are used to demonstrate that generic drugs are equivalent to performance to brand-name drugs. The purpose of the meeting was to determine whether FDA's testing regulations need updating in light of any new findings, in the scientific area that is relatively new and evolving. Maintaining a state-of-the-art capability in this area is regarded by FDA as critical to ensuring that generic drugs work as they are supposed to and provide the elderly and others with an effective lower cost alternative to brand-name medicines. A Bioequivalence Task Force was formed by FDA to study the issues posed at the workshop. The report of the Task Force was released in February 1988 and many of its recommendations have already been implemented.

In 1989, FDA has made extensive efforts to resolve all uncertainties that may have been associated with the production of generic drugs and the manner in which they are approved. The Agency has revamped the management of its generic drug operations and put in place stricter controls on the way generic drug applications are processed. FDA is also conducting an extensive and vigorous investigation of the leading drug companies that manufacture generic products in an effort to assure the public of both the safety and efficacy of the generic drug supply in the United States. The Agency is reexamining many of the original drug applications, auditing samples of leading generic products to affirm that they meet specifications for marketing, and negotiating product recalls or application withdrawals where there has been any reason to be concerned that products on the market were not supported by valid data. The Agency has issued an interim report finding that in spite of the concerns, there has been no evidence that the generic drug products on the market have been compromised, and the public can continue to us these products with confidence.

APPROVED DRUG PRODUCTS WITH THERAPEUTIC EQUIVALENCE EVALUATIONS

In order to contain drug costs, virtually all States have adopted laws that encourage or mandate the substitution of less expensive therapeutically equivalent generic drug products for prescribed brand-name drugs. These State laws generally require that substitution be limited to drugs on a specific list or that it be permitted for all drugs except those prohibited by a particular list. In response to requests from the States for FDA's assistance in preparing drug lists that would enable them to implement their substitution laws, FDA published and continually updates the Approved Drug Products with Therapeutic Equivalence Evaluations list. This list identifies currently marketed drug products approved on the basis of safety and effectiveness by FDA under the Federal Food, Drug, and Cosmetic Act and provides information on all generic drugs that FDA had determined to be therapeutically equivalent to brand-name drugs. FDA believes that products considered to be therapeutically equivalent can be substituted with the full expectation that the substituted product will produce the same therapeutic effect as the prescribed product. The United States Pharmacopeia (USP) has distributed FDA's *Approved Drug Products With Therapeutic Equivalence Evaluation* as a third volume to their USP Drug Information publications. This cooperative venture with the USP will greatly enhance the availability of this FDA publication.

HEALTH FRAUD

Health fraud the promotion of false or unproven products or therapies for profit is big business. These fraudulent practices can be serious and often expensive problem for the elderly. In addition to economic loss, health fraud can also pose direct and indirect health hazards to those who are misled by the promise of quick and easy cures and unrealistic physical transformations.

In order to combat health fraud FDA uses a combination of enforcement and education. In each case, the Agency's decision on appropriate enforcement action is based on considerations such as the health hazard potential of the violative product, the extent of the product's distribution the nature of any mislabeling that has occurred, and the jurisdiction of other agencies.

FDA has developed a priority system of regulatory action based on three general categories of health fraud: direct health hazards indirect hazards, and economic frauds. When a direct health hazard is involved, FDA takes immediate action—seizure, injunction, or recall. When the fraud does not pose a direct health hazard, the FDA may choose to concentrate more on education and information efforts to alert the public. Both education and enforcement are enhanced by coalition building and cooperative efforts between Government and private agencies at the national State, and local levels. Also, evaluation efforts help ensure that our enforcement and education initiatives are correctly focused.

The health fraud problem is too big and complex for any one organization to effectively combat by itself. Therefore, FDA is working closely with many other groups to build national and local coalitions to combat health fraud. By sharing and coordinating resources, the overall impact of our efforts to minimize health fraud will be significantly greater.

FDA and other organizations have worked together to provide consumers with information to help avoid health fraud. FDA and the Pharmaceutical Advertising Council (PAC) developed a public service campaign that uses all media to provide the public with information about how to recognize, avoid, and help stop health fraud. The public awareness campaign was so well received that FDA and PAC developed another public service campaign which was distributed during 1988.

In 1986 FDA worked with the National Association of Consumer Agency Administrations (NACAA) to establish the ongoing project called the NACAA Health Products and Promotions Information Exchange Network. Information from FDA, the Federal Trade Commission (FTC), the U.S. Postal Service (USPA) and State and local offices is provided to NACAA periodically for inclusion in the Information Exchange Network. This system provides information on health products and promotions, consumer education materials for use in print and broadcast programs, and the names of individuals in each contributing agency to contact for additional information.

In order to obtain better information on the nature of the health fraud problem, FDA worked with the Department of Health and Human Services' Office of Planning and Evaluation which contracted with Louis Harris and Associates to conduct a national health fraud survey in 1986. The survey provides the information to effectively target and focus public and private sector activities developed to combat health fraud and is a reliable measure of the reasons why consumers have used varous fraudulent products. It also explores attitudes and beliefs with regard to these products. A report of the survey results became available in 1988.

In September 1985, FDA, FTC, and USPS cosponsored a National Health Fraud Conference in Washington, DC. During 1986, as a follow-up to the national conference, FDA held regional health fraud conferences in cities across the country. There were large audiences at most meetings, and the feedback was extremely positive. These local conferences served as the impetus to develop new and expand ongoing health fraud activities and form coalitions with State and local officials, community groups, and professional organizations.

On March 13-15, 1988, FDA and St. Mary's Hospital of Kansas City, MO, cosponsored a second National Health Fraud Conference in Kansas City. This conference was designed to provide practical instruction and guidance on how to combat health fraud at the national, State, and local levels. Through keynote speeches and focused workshops, attendees received information and materials that provide numerous insights on protecting consumers from false claims and promises. One of the more popular workshops was entitled, "The Elderly as Targets of Health Fraud."

In 1988 Consumer Affairs Officers (CAOs) again began conducting regional health fraud conferences. Conferences have been held in Wilkes-Barre, PA; Louisville, KY; Detroit, MI; Albany, NY; Jacksonville, FL; Los Angeles, CA; Indianapolis, IN; and Chicago, IL.

CAOs conducted other health fraud initiatives directed to elderly consumers, including presentations to groups of senior citizens, meetings, and exhibits. The following are examples of these activities: the Los Angeles CAO helped screen exhibit applications for, and participated in, a "Time of Your Life" exposition attended by over 50,000 senior citizens: CAOs made presentations to groups of elderly in Puerto Rico, Michigan, Georgia, Florida, Indiana, Texas, Illinois, Massachusetts, Colorado, and Missouri.

The first event in FDA's campaign to combat health fraud in the Hispanic population was the 1989 National Health Fraud Conference of Puerto Rico held in San Juan on April 4-5, 1989. A workshop entitled "Why Consumers Become Victims of Health Fraud; The Elderly As Victims of Health Fraud" provided helpful insights into working with the elderly to reduce their risk of becoming victims of quackery.

Members of the planning board, who included representatives of Senior Citizens Health Promotion and Maintenance Program; Gerontology Program, School of Public Health—University of Puerto Rico; Governor's Office of Aging, and AARP, served as an advisory body for regional and local meetings held throughout Puerto Rico.

AUXILIARY TO THE NATIONAL MEDICAL ASSOCIATION PROGRAM

In 1984, 8 percent of the U.S. population 65 years and older were Black. Although data on the health of the elderly population for race groups is very limited the data suggests that, overall, the health of elderly Blacks is poorer than for elderly Whites. In general health care delivery to older people is fraught with a wide variety of problems:

—poor communication between older patients and health professionals;
—use of multiple drugs;
—multiple providers;
—altered drug action and response with advancing age;
—inability to take the medication as prescribed; and
—deliberate noncompliance.

To focus attention on these intertwined problems, the Food and Drug Administration and the Auxiliary to the National Medical Association (ANMA) are continuing with a joint public awareness program which focuses on community-based patient education initiatives from a family perspective.

Begun in fiscal year 1989, the program has the following goals:

—develop a patient education and information program about prescription drugs especially targeted to the Black community, with emphasis on the elderly;
—train a cadre of volunteers as trainers at the national level to ultimately result in a national network of volunteers; and
—demonstrate the education information programs through tailored workshops in select geographical locations among the leading 100 cities with highest concentrations of Blacks, particularly the Black elderly.

Recognizing the importance of not only enlightening senior citizens, but also establishing support networks which ensure institutionalization at the community level, FDA and ANMA chose the community based diffusion model of outreach to optimize the chance for successful and lasting results. The planned outreach activities for this program will when appropriate, involve other agencies, such as the Administration on Aging, which regularly interact with this population.

1987 OSTEOPOROSIS CONFERENCE

On October 30, 1987, FDA's Office of Consumer Affairs sponsored a Special Topic Conference on Osteoporosis. This conference was the first of a series of national events to follow-up the 1986 National Conference on Women's Health where osteoporosis was recognized as a serious public health problem with a particularly significant impact on women's health.

According to statistics compiled by the National Osteoporosis Foundation, approximately 20 million Americans—many of them older women—are affected by this debilitating condition. While the cost of osteoporosis in terms of the quality of life is immeasurable the cost in terms of health care and lost productivity ranges between $7 to $10 billion annually.

For this reason, the Food and Drug Administration decided to examine the subject more comprehensively by sponsoring a national conference. The goals of the 1987 Special Topic Conference were two-fold:

—To focus national attention on the known risk factors associated with osteoporosis and the critical interventions that can be taken at difference phases of a women's life to prevent or minimize the tragic impact of osteoporosis.
—To assist health care providers, health educators, and the media to better discern the knowns, unkowns, and unresolved issues related to the prevention, diagnosis and treatment of osteoporosis.

Building upon the scientific base established at the National Institutes of Health Research Workshop held earlier in the year the conference brought together recognized experts to translate the baseline of scientific findings into practical messages for the clinical management of patients, as well as for the education of women at various life stages.

The conference was attended by 630 registrants representing diverse sectors of the public health community, including health care providers and public health educators, consumers, industry, Federal and State government and women themselves from all parts of the country. The conference proceedings are expected to be available in the spring of 1990.

ACTIVITIES OF CONSUMERS AFFAIRS OFFICERS

Mammography, an x-ray examination of the breast used as a screening tool in the detection of breast cancer, is the best method currently available for detecting tumors in their early stages, offering women their best chance for survival.

A variety of organizations such as the National Cancer Institute (NCI) have issued recommendations concerning when women should undergo mammography. All these organizations agree that all older women—over the age of 50—should be screened annually, but they differ concerning the age when women should be screening.

To inform women and health care providers about mammography and the early detection of breast cancer the Food and Drug Administration's Office of Consumer Affairs and the Center for Devices and Radiological Health initiated an education campaign which focused on the need to select a quality mammography facility.

Initially, directed to a mailing list of over 14,000 organizations and individuals representing the interests of women across the country, including Canada, a "Dear Consumer" letter and information package was mailed on April 14, 1988. Subsequent to the mailing, feature articles on the topic of mammography appeared in a variety of lay and trade media that referred their readers to the FDA for more information.

Additional publicity and information dissemination was conducted by FDA's Consumer Affairs Officers, the Agency's educational arm in the field offices across the country. Thirty-four CAOs gave further outreach to these important health messages by working with local and regional constituencies.

Another endeavor which was conducted by Consumer Affairs Officers in the Southeastern Region of the country examined the impact of chronic diseases—a prevalent problem among older Americans—on low income and minority women.

On January 29, 1988, FDA and the University of Georgia Cooperative Extension Service and Center for Continuing Education cosponsored a videoteleconference titled "Women and Chronic Diseases: Reducing the Risk Factors." The teleconference focused on specific health problems that may increase illness and premature death in women, such as obesity, hypertension, cardiovascular heart disease, diabetes, and cancer. Originating in Athens, GA, the teleconference was satellite-broadcast to approximately 60 sites around the Southeastern United States, reaching over 2,000 community leaders health care providers and educators who serve low income and minority women. A key component of the conference was to challenge the registrants to tailor the education messages to their constituents and implement programs at the community level.

In 1989, CAOs continued their efforts to reach consumers on issues important to the aging population by working through multiplier groups such as the Tennessee Commission on Aging, the California Hispanic Women's Health Society and the National Network of Hispanic Women. The Newark District Office co-sponsored a 2-day National Conference with the Gerontology Institute of New Jersey at Princeton, NH, addressing "Nutritional Needs for the Elderly" and "Drug Abuse and Mismedication in the Elderly." Medication use has been a concern in every region. The California Medication Coalition, Stanford University, and FDA sponsored a 1-day conference on "Traditional and Non-Traditional Medication Use Among Ethnic Elders" for over 300 geriatric educators and health care providers. Major health problems for the elderly such as the disturbing data on the potential danger of Enkaid and Tambocor for non-life-threatening arrhythmias were handled nationally through press releases and hotline calls and regionally through media appearances by CAOs and conference and personal contacts with multiplier groups. A story on hearing aid information placed by a CAO in a Florida newspaper generated over 1,000 requests for additional information.

FOOD PROGRAMS FOR THE ELDERLY

FDA has been involved in cooperative programs with the Health Care Financing Administration and the Administration on Aging (AoA) to help open lines of communication and training between personnel involved in food service programs for the elderly and State and local food officials. In addition to providing food handling training and seminars, FDA has participated in management training and certification in food protection sanitation. The Agency routinely makes available copies of its regulations and guidelines for use in the seminars.

FOOD LABELING

Nutrition information is of particular value to older persons many of whom are advised by their physicians to reduce consumption of salt/sodium and other food components. Thus, FDA's sodium initiatives program is especially useful to the elderly population. FDA regulations concerning the declaration of sodium content and label claims for sodium content became effective July 1, 1986. These regulations have already resulted in greater availability of sodium information to those medically advised to reduce sodium intake as well as to those voluntarily seeking to reduce or moderate sodium consumption.

The regulations define terms such as "low sodium," specifying the maximum levels of sodium that a serving of food may contain when the terms are used on product labels. These rules also require the declaration of the sodium content on food labels which contain nutrition information. Nutrition information is required if a processor adds nutrients to a product or makes nutritional claims about it. In addition, the regulations provide for the voluntary inclusion of potassium content information in nutrition labeling because people with kidney and some other diseases who must control their sodium intake must also control their potassium intake. Also, people with high blood pressure and other related health problems often use potassium in place of sodium.

Many major food manufacturers have voluntarily included sodium information on food labels since FDA sodium initiatives were begun in 1981. Sodium labeling has increased markedly; it is estimated that over half of the products regulated by FDA now carry sodium labeling.

Older persons also are frequently medically advised to reduce their fat and cholesterol intake. A proposed regulation, published in the Federal Register of November 25, 1986, would define terms for the cholesterol content of foods and establish requirements for the inclusion of cholesterol as part of nutrition labeling when claims are made relative to cholesterol content or fat content of a food. This proposal defines the term "cholesterol free" as applicable for any food containing less than 2 mg cholesterol per serving "low cholesterol" for foods containing less than 20 mg cholesterol per serving and "reduced cholesterol" for a 75 percent reduction in cholesterol per serving. The Agency is also advising supermarket chains on appropriate fat and cholesterol shelf labeling initiatives and cooperating with the National Cholesterol Education Program of the National Heart, Lung and Blood Institute.

The older as well as younger population has strong interest in possible relationships between diet and health. Most consumers, but especially the elderly, are vulnerable to misleading health claims about foods. FDA currently is considering ways to permit appropriate health claims on food labels that will not be misleading to consumers. A proposed regulation published in the Federal Register of August 4, 1987, describes the Agency's current position on this issue and requests comments from all interested parties.

Based on the growing body of evidence that diet has a major impact on the development of certain chronic diseases and interest on the part of the food industry, consumers, health professionals, and State and Federal legislative groups, FDA has determined it is timely to consider revising food label requirements. Accordingly, an Advance Notice of Proposed Rulemaking was published in the Federal Register on August 8 1989, requesting comments on whether to revise the requirements for nutrition and ingredient labeling, whether to change the nutrition label format, and whether to formally define commonly used food descriptors and/or reconsider the use of standards of identity for foods. Four public hearings have also been held on these issues in which many older persons testified on the particular problems they have with current food labeling.

TOTAL DIET STUDIES

The Total Diet Study, as part of FDA's ongoing food surveillance system provides a means of identifying potential public health problems with regard to diet for the elderly and other age groups. Through the Total Diet Study, FDA is able to measure the levels of pesticide residues, industrial chemicals, toxic elements, and nutritional elements in selected foods of the U.S. food supply and to estimate the levels of these substances in the diets of eight age-sex groups (6- to 11-month infants, 2-year-old children, 14- to 16-year-old boys, 14- to 16-year old girls, 25- to 30-year-old females, 25- to 30-year-old males, 60- to 65-year old females, and 60- to 65-year-old males). Because the Total Diet Study is conducted yearly it also allows for the determination of trends and changes in the levels of substances in the food supply and in daily diets.

The Total Diet Study is being modified to reflect the lastest food consumption information from the 1987-88 U.S. Department of Agriculture Nationwide Food Consumption Survey. The revision will also add about 15 more foods and will include data to calculate dietary exposures for men and women aged 70 and older.

POSTMARKET SURVEILLANCE OF FOODS AND FOOD ADDITIVES

The FDA's Center for Food Safety and Applied Nutrition receives and evaluates approximately 1,500 reports of adverse reactions to foods and food additives each year. Of the complainants who reported their age 12 percent were individuals over age 60.

PROJECT ON CALORIC RESTRICTION

FDA is participating in research which could lead to significant insight into the relationship between dietary habits and life-span. The Project on Caloric Restriction (PCR) is a collaborative effort of FDA's National Center for Toxicological Research (NCTR) and the National Institute on Aging (NIA). It is designed to study whether a diet that is calorically restricted will add to the longevity and health of laboratory rats and mice. An increasing interest in the role of caloric restriction in aging coupled with the potential economic impact associated with health care was the impetus for the creation of the PCR.

The extraordinary interest displayed by research groups across the country and the NCTR's commitment to the PCR project have produced a scientific environment conductive to the interchange of ideas and the formulation of new approaches to research in aging and toxicity. To effectively coordinate research being conducted in the diverse scientific disciplines, NCTR has developed a matrix which identifies areas of ongoing research, identifies additional research areas that need to be addressed and helps to avoid duplication of research effort.

Preliminary information suggests that calorically-restricted animals are living longer than animals on unrestricted diets and are exhibiting a reduced incidence of all forms of spontaneous toxicity. In other words, caloric restriction may dramatically influence cancer development toxic response, and biological processes usually associated with aging.

MEDICAL DEVICES OF PARTICULAR BENEFIT TO THE ELDERLY

INTRAOCULAR LENSES

Data on intraocular lenses (IOLs) continue to demonstrate that a high proportion (85 to 95 percent) of the patients will be able to acheive 20/40 or better vision with the implanted lenses and that few (3 to 5 percent) will experience poor visual acuity (20/200 or worse). The data also demonstrate that the risks of experiencing a significant post-operative complication are not great. Furthermore many of the complications result during the early post-operative period and are associated with cataract surgery; the incidence of these complications is generally not affected by IOL implantation. Approved lenses have a significant impact on the health of elderly patients having surgery to remove cataracts. The IOLs because they are safe and effective aid elderly patients by increasing the options available to maintain their sight and thus their ability to drive and otherwise lead normal lives. The cost of IOL implantation is competitive with other available options, particularly when the continuing cost of contact lens care accessories, such as cleaning and storage solutions, disinfection solutions, or heat disinfection units are considered. FDA continues to monitor several hundred investigational IOL models and has to date, approved over 900 models as having demonstrated safety and effectiveness.

At the same time, FDA scientists are testing the optical quality of IOLs being marketed as investigational devices. FDA studies will include measurements of focal length, resolving power, astigmatism, and image quality. This information will provide a useful data base that can be factual in making decisions about optical quality of new IOL designs. Early test results show that the overall optical quality of currently marketed IOLs is good.

Due to the large number of IOLs now available the situation that originally prompted concern from Congress and resulted in large adjunct investigations, no longer exists and the studies are in the process of being phased out over a 3-year period. An adjunct study is a clinical investigation peculiar to IOLs, which permits unlimited IOLs to be implanted under conditions requiring collection of adverse reaction data only. FDA permitted adjunct studies of IOLs in order to comply with provisions in the Medical Device Amendments created to ensure that IOLs would continue to be made "reasonably available" to physicians while data to support their safety and effectiveness were being collected. While the adjunct provisions have permitted widespread and immediate availability of new IOLs, they have provided little benefit from a safety monitoring of data collection perspective. In fact, the availability of large numbers of IOLs through the adjunct study has provided a disincentive to firms to collect, analyze, and submit data to FDA in support of a premarket approval application.

FDA is now in the third year of the 3-year transition to terminate these studies which have outlived their usefulness. Appropriate precautions are being taken not to disrupt normal ophthalmic are in the process.

PACEMAKERS

Dysfunction of the electrophysiology of the heart can develop with age, be caused by disease or result from surgery. People with this condition can suffer from fainting, dizziness, lethargy, heart flutter and a variety of similar discomforts or ills. Even more serious life-threatening conditions such as congestive heart failure or fibrillation can occur.

The modern pacemaker is designed to supply stimulating electrical pulses when needed to the upper or lower chambers of the heart or with some newer models, both. It has corrected many pathological symptoms for a large number of people.

Approximately half a million elderly persons have pacemakers. At present, an estimated 125,000 pacemakers are implanted annually, 30 percent being replacements. An estimated 75 percent of these are for persons 65 years of age or older. Without pacemakers, some of these people would not have survived. Others are protected from life-threatening situations and, or most, the quality of life has been improved.

FDA, in carrying out its responsibilities of ensuring the safety and efficacy of cardiac pacemakers, has classified the pacemaker as a Class III medical device. Devices in Class III must undergo stringent testing requirements and FDA review before approval is granted for marketing.

In addition, FDA in conjunction with the Health Care Financing Administration (HCFA) of the Department of Health and Human Services has instituted a national registry of cardiac pacemaker devices and leads. HCFA and FDA have developed an operational registry with a data base of approximately 500,000 pacemaker and lead entries to date.

Physicians and providers of health care services must submit information to a national cardiac pacemaker registry if they request Medicare payment for implanting, removing, or replacing permanent pacemakers and pacemaker leads. The final rule implementing the national registry was published by FDA and HCFA in the July 23, 1987, Federal Register and became effective on September 21, 1987.

Under this new rule, physicians and providers of services must supply specified information for the pacemaker registry each time they implant, remove, or replace a pacemaker or pacemaker lead in a Medicare patient; HCFA may deny Medicare payment to those who fail to submit the required data. The information is submitted to HCFA's fiscal intermediaries at the same time as the bill for services and HCFA relays the data to FDA. Health care providers may obtain forms for submitting the information from the fiscal intermediaries.

FDA plans to use the data from the registry to monitor the long-term clinical performance of pacemakers and leads. FDA will use the registry data, along with information received under the Medical Device Reporting regulation to track failures or defects in certain models of pacemakers and leads and notify HCFA so they may stop Medicare payments for those products.

The required information includes:

—The name of the manufacturer, the model and serial number of the pacemaker or pacemaker lead, and the warranty expiration date.

—The patient's name and health insurance claim number, the provider number, and the date of the procedure.

—The names and identification numbers of the physicians ordering and performing the surgery.

When a pacemaker or lead is removed or replaced, the physician or provider must also submit the date of initial implantation (if known), and indicate whether the device that was replaced was left in the body and, if not, whether the device was returned to the manufacturer.

HEMODIALYSIS

End Stage Renal Disease (ESRD) patients are totally dependent upon dialysis treatment for survival until they receive a transplant, or if that is not possible, for the remainder of their lives. Moreover, ESRD is a disease of the elderly. Recent data released by the Renal Data System indicated that the median age adjusted for age and sex for new ESRD patients in 1987 was 60, with 38.2 percent over 64.

Because of the nature of the treatment, patients are vulnerable to a number of possible hazards during dialysis. Many of the hazards arise from failure to properly maintain and use the equipment, or from insufficient attention to the safety of the dialysis system components. Educational programs are being conducted in several areas to alleviate these problems.

Following the success of the educational video on human factors in hemodialysis described in last year's report, FDA in conjunction with organizations such as the Health Industry Manufacturers Association (HIMA), the Renal Physicians Association (RPA), and the American Nephrology Nurses' Association (ANNA), have been active in developing several additional videos and manuals. In addition, FDA has issued a safety alert after an incident in which several patients became ill in a facility due to the contamination of the water supply used to prepare dialysate.

The safety alert was issued to all dialysis centers in the country and warned personnel and water service contractors of the potential for serious injury to patients if dialysis water treatment filters preserved with sodium azide are not rinsed thoroughly before use.

The alert emphasized that all newly installed filters in a dialysis must be adequately rinsed before use since other preservatives used in manufacturing the filters (such as formaldehyde and sodium bisulfite) are also toxic.

Studies have consistently shown that water used in dialysis facilities to prepare dialysate has not always been adequately treated. Because of the concern that the level of known or suspected toxins is increasing due to the increasing pollution, and that the increasing level of contaminants can affect patient well-being, FDA initiated a contract with the Regional Kidney Disease Program (RKDP) of the Minneapolis Medical Research Foundation to develop a manual describing optimal treatment procedures for water used in dialysis. The manual which has been published discusses each component of the water treatment system, including its purpose, faults and advantages over other methods, the contaminants removed and the consequences of improperly treated water. It also contains information that hemodialysis facilities can use in their interactions with water treatment vendors. A complimentary copy of the manual is being distributed to all dialysis facilities in the country.

As companion to the water treatment manual an educational video on water treatment was also completed this year. The video entitled, "Water Treatment in Hemodialysis" discusses the problems that could be experienced by patients with inadequate treatment of water used to prepare dialysate and how proper water treatment equipment, properly maintained, can prevent untoward reactions in ESRD patients especially in the elderly who may be more sensitive to the chemical and biological contamination of the water supply. This video has been distributed to all dialysis facilities in the country and has gotten many favorable comments from the dialysis community.

A second video completed this year is entitled, "Infection Control in Hemodialysis." The video emphasizes universal precautions as they relate to prevention of blood-borne infection transmission in the dialysis setting. The video alerts the health care providers and patients to infection control protocols and techniques, particularly with respect to hepatitis B virus and human immunodeficiency virus (HIV). The video takes a common sense approach to the infection control issues of most concern to people involved in dialysis. The video has been completed and should be distributed to every dialysis facility in the country early in 1990.

The FDA in conjunction with RPA and other concerned groups is working on an additional video on the reuse of hemodialyzers. The video will follow the protocols detailed in the Association for the Advancement of Medical Instrumentation's (AAMI) Recommended Practice for the Reuse of Hemodialyzers which have been adopted by the Health Care Financing Administration (HFCA) as a condition of coverage to ESRD providers that practice reuse. It is expected that the video will be completed early in 1990 and distributed to all dialysis centers by the summer.

A multi-State study conducted for the FDA in 1987 indicated that dialysis facilities appeared to be deficient in Quality Assurance (QA) techniques used in water treatment, dialysate concentrate handling and dilution and the reuse of disposables. The study concluded that the incorporation of effective QA programs in dialysis facilities could help to control the incidence of infection among patients and staff as well as improved patient outcome through improved quality of care. To meet this need, FDA initiated a contract to develop guidelines that can be used by dialysis personnel in establishing QA programs. The project has been funded for FY 1989 and FY 1990. The contract is expected to be completed at the end of calendar year 1990 or early 1991.

BLOOD GLUCOSE MONITORS

Recent publications estimae the number of diagnosed diabetics in the United States to be 5 million and increasing at a rate of 600,000 per year. Over 65 percent of diabetics are 55 years older and, of course many must monitor their blood glucose.

Since the implementation of Medical Device Reporting (MDR) regulations in December 1984, approximately 2,200 reports were submitted to the FDA regarding performance problems encountered by users of self-monitoring blood glucose (SMBG) systems. As a result of these findings, a project was initiated to study and provide solutions to the problems with use of these devices. The study is being conducted in four phases: (1) information/data analysis, including labeling, instructional and training materials; (2) identification of problems and contributing factors, including the use of data obtained by survey, contract, scientific literature, laboratory testing and MDR submissions; (3) develoment of a strategy for corrective action(s); and (4) implementation of corrective actions that could include assistance and collaboration with interested organizations. An SMBG Task Force consisting of CDRH staff members who have had prior experience or are currently involved in matters pertinent to this important health care issue, is responsible for implementing this task.

A team of six CDRH staff reviewed 45 pieces of SMBG labeling (user manuals, summary instructions, and package inserts for reagent strips, lancing devices calibration and control materials) that accompany blood glucose devices sold over the counter for use by diabetics. The review focused on (1) whether step-by-step instructions and other information are presented in a way the facilitates understanding; (2) if illustrations are used and are accurate, clear, and well formatted; (3) if important information such as key tasks to be performed and cautionary statements are adequately emphasized using highlighting techniques; (4) the adequacy of print size used; and (5) if grade reading levels at which the information is written (based on application of the SMBG Grading Formula) are adequate for users.

Currently in process is the Human Factors Analysis of Blood Glucose Monitors contract. The study will:

—determine if operation and instructional materials of blood glucose meters is compatible with users' abilities

—determine if the features of blood glucose meters contribute to user error; and

—determined the quality and quantity of instructional material available to meter users for learning proper meter operation.

Certainly, the limitations of the elderly, e.g., slowed response time, deficient vision, etc. are important considerations in properly using gluscose meters. The study will be looking at all of these issues.

HEALTH RESOURCES AND SERVICES ADMINISTRATION

The Health Resources and Services Administration (HRSA) provides leadership and direction to programs and activities designed to improve health services and resources for people in the United States, particularly those who are underserved. As part of the Public Health Service, HRSA has leadership responsibility for general health service and resource issues relating to access, equity, quality and cost of care. These responsibilities are carried out by the Bureau of Health Professions, Bureau of Health Care Delivery and Assistance, Bureau of Maternal and Child Health and Resources Development, and components of the Office of the Administrator.

HRSA pursues its objectives by supporting States and communities in their efforts to plan, organize and deliver health care, especially to underserved area residents, migrant workers, mothers and children, the elderly, and other groups with special needs; participating in the campaign against AIDS; providing leadership in addressing the issues and unique problems related to health care services in rural areas; providing leadership in improving the supply, quality, education, distribution and utlization of health professionals; increasing the number of minorities in the health professions; administering the organ transplant program; providing direct personal health services for Hansen's Disease patients and other designated beneficiaries; monitoring developments affecting health facilities and ensuring that previously aided institutions honor their commitments to provide uncompensated care; assuring that employee and workplace health factors that increase the Federal Government's productivity and decrease its liability are raised to the highest practical level; and developing working relationships with the private sector which will enhance and extend program efforts.

HRSA is concerned about training our Nation's professionals to provide care for today's older individuals and individuals who will be old in the future. The Agency provides services to underserved older Americans, such as those who live in rural areas and those with low incomes. One-third of older Americans live in rural areas. One out of four elderly Americans, or 7.4 million, are poor or near poor.

Several HRSA components significantly influence programs and activities that benefit older Americans, while the HRSA Committee on Aging-Related Issues serves as the focal point within the Agency.

HRSA COMMITTEE ON AGING-RELATED ISSUES

The rapidly expanding population is of particular importance to HRSA because of the implications concerning general health service and resource issues as they relate to access, equity, quality, and cost of care. The Committee, established in December 1987 by the Administrator, has representatives from all Bureaus and components of the Office of the Administrator. It is charged with broad-based responsibilities, including providing advice to the Administrator, improving the awareness of all HRSA employees concerning aging-related issues, providing a forum within the Agency for sharing information, and developing a plan to increase the relevance and accessibility of HRSA programs to aging Americans.

The Committee assumes responsibility for the annual celebration of Older Americans Month. In 1989 the celebration included a Colloquium presentation on health promotion and aging. The Committee developed "A Profile of HRSA Programs That Benefit Older Americans." It responded to over 100 requests for this publication.

The Committee coordinates the implementation of the Memorandum of Understanding between AoA and HRSA, which has five major objectives: (1) Supporting States and communities in the development of improved health care systems for serving older adults; (2) promoting expanded education and training opportunities for health care personnel; (3) collaborating with the private sector to improve health and health care for the elderly; (4) promoting the maintenance, improvement, and expansion of health services for older persons in rural areas; and (5) supporting model programs for older AoA and HRSA employees and for employees providing care to older family members. Progress for objectives 1-4 appear in subsequent sections.

For objective 5, HRSA management is implementing a comprehensive plan to assist employees caregivers. It was publicized in The HRSA Chronicle: *Special Issue on Eldercare*, which was distributed to all employees. Included are dissemination of the findings of the HRSA Survey of Caregiving Responsibilities (e.g., approximately one-half of respondents are caregivers, one-half provide care to an individual living at a distance, three-fourths are in managerial/professional positions, two-thirds are women); distribution of the Inventory of The HRSA Older Adult Resource Center, listing over 100 items on health promotion and caregiving; information on flexitime and other leave opportunities helpful to caregivings; and a description of services provided through the Employee Assistance Program.

Members of the Committee work closely with other Federal agencies and the private sector. They are engaged in a variety of interagency activities, such as the Forum on Aging-Related Statistics, Ad Hoc Interagency Committee on Research on Aging and DHHS Council on Alzheimers Disease. They were involved in the development of health promotion objectives for the Year 2000 and the implementation of the recommendations of the Surgeon General's Workshop on Aging.

BUREAU OF HEALTH CARE DELIVERY AND ASSISTANCE

The Bureau of Health Care Delivery and Assistance (BHCDA) helps assure that primary helath care services are provided to persons living in medically underserved areas and to persons with special health care needs. It also assists States and communities in arranging for the placement of health professionals to provide care in health personnel shortages areas. The Bureau provides services to older Americans primarily through Community and Migrant Health Centers (C/MHCs or Centers), the National Health Service Corps, the Home Health Demonstration Program, and The Health Care for the Homeless Program.

—In fiscal year 1989, a total of 550 C/MHCs, located in medically underserved areas, provided a range of family-oriented, preventive, primary case managed care services to those who would otherwise lack access to care, particularly the poor and minorities. Approximately 5 million people were served, of which over 9 percent (or about 470,000) were age 65 or older.

The cooperative program between the Bureau and the Administration on Aging (AoA) is near completion. The purpose of the collaborative project is to improve the delivery of primary health care to older persons by establishing linkages among area agencies on aging (AAAs), community and migrant health centers, and other types of health care agencies. Training was given to AoA and Primary Care Association (PCA) staff to assist them in developing statewide plans for health services to the elderly. An evaluation of the training that began in fiscal year 1989, will be completed in the Spring, 1990.

The HRSA and AoA have conducted an evaluation of the activities under the collaborative project. The evaluation produced case studies on the development of linkages between the PCAs and the AAAs and statewide planning efforts. Findings of the case studies showed that financial barriers, particularly obtaining third party reimbursements from Medicare, were the major impediments to increasing elderly participation in C/MHCs. With respect to Medicare, these Centers indicated serveral barriers, such as the following: the level of reimbursement is not enough to cover costs of care, the cost of procesing is too high relative to reimbursement, and administrators, in some instances, are not fully knowledgeable about processing for reimbursement.

The evaluation also indicated the desirability and acceptability of the linkages by the state, local and federal agencies. Most of the AAAs and PCAs involved in the case studies have adopted agreements to improve the acceptability of services to the elderly by more thoroughly refining and marketing the services. The revised final report will include both an analysis of collaboration efforts, and a manual on enhancing Medicare reimbursement to community and migrant health centers. These documents will be useful to C/MHCs, AoA and others interested in collaborating on enhanced services for the elderly.

—The National Health Service Corps places physicians, dentists, nurse practictioners and other health professionals in health personnel shortage areas. Older Americans with special health needs and reduced mobility need primary care providers close at hand. The Corps works closely with C/MHCs, the Indian Health Service, the Federal Bureau of Prisons and other Federal agencies to provide assistance in recruiting and retaining health personnel for populations in need. Physical therapy, high blood pressure screening, stroke prevention and nutrition counseling are among the services provided to the elderly.

—In fiscal year 1989, through the Health Care for the Homeless Program, primary health care, outreach, substance abuse, mental health and case management services were provided to 231,000 homeless individuals, of which 3 percent were aged.

—The Health Care in the Home Demonstration Program is targeted for low-income, highly vulnerable individuals who can avoid lengthy stays in hospitals and other institutions. The Bureau has awarded $2.47 million in second funding for this 3-year demonstration program. A multidisciplinary team approach is a central feature of the five-State program. The following is a detailed description of the project.

Project.—Health Care Services in the Home Demonstration 10/1/88–9/30/91

The Bureau of Health Care Delivery and Assistance awarded $2.47 million in the second year of continuation funding under the Health Care in the Home Services Act. This amount totals $7.2 million for a 2 year total.

The project is continuing to demonstrate that those low-income, uninsured individuals at high risk for multiple hospitalizations or institutionalization can best be medically served in the home. The project has awarded funds to five State grantee agencies (Hawaii, Utah, North Carolina, South Carolina, and Mississippi) to demonstrate and evaluate the Program. The grantees have identified eligible recipients to participate in the program. At least 25 percent of those who will receive care will be 65 years or older.

The demonstration program is oriented toward case management and service delivery. The multidisciplinary team approach remains as the primary focus of the program. It involves a comprehensive continuum of efficient, effective, and qualitative home care provided by a team of health professionals appropriate for each patient case.

In the first year of funding, the grantees emphasized the design of their specific program. Primary focus had been on formalization and start-up costs associated with a new program. The second year of funding will primarily entail the implementation of services. The grantees have contracted to area home health agencies to provide skilled medical services or related health services.

A contract for the Demonstration program valuation over the entire 3 years has been awarded. The evaluator is responsible for data collection and analysis to permit a comparative review of the program. A second year technical assistance contract to provide assistance to the grantees for program development and implementation will be awarded by early 1990.

Two of the grantees are working with their State Council on Aging to develop case management, which focuses on the interdisciplinary approach to needs assessment, care planning, service delivery and evaluation. This collaborative effort will also identify clients with risk factors for program eligibility. The coordination of services by case management will insure integration of services to meet the total needs of the patient. Additionally, the grantees have developed specific quality assurance plans and controls for efficiency and cost-effectiveness of their programs.

The Health Care in the Home Services Act program is demonstrating a State-administered centrally financed and locally operated public and private system of providing, coordinating, monitoring, and evaluating a service delivery for in-home health and long-term care services.

BUREAU OF HEALTH PROFESSIONS

The Bureau of Health Professions (BHPr) provides national leadership to improve the training, distribution, utilization, and quality of personnel required to staff the Nation's health care delivery system. BHPr assesses the supply of and requirements for the Nation's health professionals and develops and administers programs to meet those requirements. It also collects and analyzes data and disseminates information on the characteristics and capacities of health professions production systems. The Bureau develops, tests, and demonstrates new and improved approaches to the development and utilization of health personnel within various patterns of health care delivery and financing systems. BHPr provides financial support to institutions and individuals for health professional education programs, administers Federal grant programs for targeted health personnel development and utilization, and provides technical assistance to national, State, and local agencies, organizations, and institutions for the development, production, utilization, and evaluation of health personnel. These activities are carried out under the legislative authorities of Titles VII and VIII of the Public Health Service Act.

Fiscal year 1989 program activities contributing to the development of professional personnel to provide health care to the aged included:

(1) Activities under training authorities targeted specifically for geriatric and gerontological education;

(2) Activities under training authorities for primary care, nursing, and other health professionals where geriatric training may be provided as part of a broader educational emphasis; and

(3) Data collection, studies and other activities aimed at assessing and enhancing the qualifications of future health care providers to respond to the needs of the aged.

TARGETED SUPPORT FOR GERIATRICS

Thirty-eight Geriatric Education Centers (GECs) received grants under section 789(a) and Section 301 of the PHS Act, an authority which specifically authorizes geriatric training. Many centers are consortia or other organizational arrangements involving several academic institutions, a broad range of health professions schools, and a variety of clinical facilities.

The Centers are based at the following institutions: University of Connecticut, Farmington, CT; Harvard Medical School, Boston, MA; State University of New York at Buffalo, Buffalo, NY; University of Puerto Rico, San Juan, PR; Hunter College Jointly with Research Foundation of CUNY, New York, NY; Temple University, Philadelphia, PA; University of Pennsylvania, Philadelphia, PA; Virginia Commonwealth University, Richmond, VA; University of Alabama at Birmingham, Birmingham, AL; University of Mississippi Medical Center, Jackson, MS; University of Kentucky, Lexington, KY; University of Florida, Gainesville, FL; University of South Florida, Tampa, FL; Bowman Gray School of Medicine, Winston-Salem, NC; Duke University, Durham, NC; University of Miami, Miami, FL; Case Western Reserve University, Cleveland, OH; Marquette University, Milwaukee, WI; Chicago College of Osteopathic Medicine, Chicago, IL; Michigan State University, East Lansing, MI; University of Illinois, Chicago, IL; University of Minneapolis, MN; Baylor College of Medicine, Houston, TX; University of Texas Health Science Center, San Antonio, TX; Louisiana State University, New Orleans, LA; University of Oklahoma, Oklahoma City, OK; University of New Mexico, Albuquerque, NM; University of Iowa, Iowa City, IA; Creighton University School of Medicine, Omaha, NE; University of Utah, Salt Lake City, UT; University of North Dakota, Grand Forks, ND; Stanford University, Stanford, CA; University of Southern California, Los Angeles, CA; University of Hawaii at Manoa, Honolulu, HI; University of California, Los Angeles, CA; University of California, LaJolla, CA; University of Washington, Seattle, WA; and Oregon Health Science Center, Portland, OR.

Awards for these 38 GECs totaled $10.6 million for fiscal year 1989. Funding for fiscal year 1990 under Section 789(a) is expected to be approximately $10 million. These Centers are educational resources providing multidisciplinary geriatric training for health professions faculty, students, and professionals in allopathic medicine, osteopathic medicine, dentistry, pharmacy, nursing, occupational and physical therapy, podiatric medicine, optometry, social work and related allied and public or community health disciplines. They provide comprehensive services to the health professions educational community within designated geographic areas. Activities include faculty training and continuing education for practitioners in the disciplines listed above. The Centers also provide technical assistance in the development of geriatric education programs and serve as resources for educational materials and consultation.

Awards were made in FY 1989 for the second year in the grant program entitled, "Faculty Training Projects in Geriatric Medicine and Dentistry," authorized under Section 789(b). There were 23 continuation awards totaling $3.1 million. These awards provided geriatric faculty training experiences for 38 physician participants and 26 dental participants through 1-year or 2-year fellowship programs and/or 1-year retraining projects. The training content included teaching skills, administrative and research skills as well as clinical geriatrics.

GERIATRIC ACTIVITIES SUPPORTED UNDER BROADER TRAINING AUTHORITIES

The Bureau's Division of Associated and Dental Health Professions funds education projects for a wide array of health providers. The General Dentistry training grant program currently supports 28 postdoctoral residency and advanced education programs in dentistry, which include training opportunities to provide dental care to the elderly. In awarding those grants, a funding priority was given to applicants who proposed to further expand and improve the geriatric training components of their postdoctoral programs. Eighty-four percent of the approved general dentistry applicants addressed the special geriatric training priority.

A working group of practicing and academic health professionals was convened to address issues concerning geriatric training as it relates to public health professionals. The group developed a short-term intensive curriculum which is to be pre-tested and then implemented for use by public health personnel. The intent of this project is to develop a prototype curriculum which will serve providers responsible for services to future geriatric populations. Copies of the curriculum module will be made available to schools and health agencies during the coming fiscal year.

The grant program of Interdisciplinary Training for Health Care for Rural Areas has as its goal improving access to health care for the residents of rural communities. A funding priority for this grant program will be given to applicants who include curriculum elements that address the uniqueness of health conditions and the ethnic/cultural characteristics of the populations within the rural areas where training/service is occurring. This provision includes the health of older Americans.

Another new grant program, Special Project Grant Program to Schools of Public Health, has identified geriatric training and education issues as an area for special consideration.

Under section 788(b), The Model Education Projects programs are intended to provide for the development and implementation of model projects in areas such as faculty and curriculum development and the development of new clinical training sites. This program proposes incorporation of programs sensitive to the needs of special populations, including the chronically ill and the aged. Funding priority is proposed for applications that plan to develop educational models pertaining to health care of minority elderly.

Allied Health Special Project Grants under section 796 have several purposes related to the aged: number 2—"to improve and expand enrollment in professions with greatest demand and most needed by elderly"; number 3—"interdisciplinary training programs that promote allied health in geriatrics and rehabilitation of elderly"; number 5—"adding and strengthening allied health curriculums in prevention and health promotion, geriatrics, long-term care, home health and hospice care, and ethics."

FISCAL YEAR 1989 DIVISION OF MEDICINE GERIATRIC ACTIVITIES

The Division of Medicine continues to support a significant number of grantees for their educational and training program activities in geriatrics. A total of

$5,734,230 was awarded specifically for these efforts, which are estimated to impact the training of 3,335 individuals and a population of approximately 298,164.

Twenty-seven predoctoral grantees and 113 graduate program grantees under section 876(a)—Family Medicine Training—indicated that they are actively involved in the development, implementation and evaluation of their geriatrics curriculum and training. Twenty-three of the residency program grantees received funds totaling $1,481,819 specifically for developing and enhancing geriatrics curriculum and training. These awards ranged between $13,150 and $135,090, the largest going to the University of Connecticut for expansion of the training in geriatric medicine. In addition, 33 faculty development programs reported that they provided geriatrics training. Eight of the section 780 Family Medicine Departments program grantees have established a geriatrics component, and $403,025 was awarded specifically for this purpose.

Under section 784, the General Internal Medicine and General Pediatrics Residency Training programs reported 30 grantees who provided geriatric medicine training to approximately 186 residents. A total of $136,140 was awarded to five of the programs for their efforts. In addition to graduate training, 2 grantees under the faculty development program indicated that their geriatric emphasis would impact about 38 faculty, but no specific funds were received for these activities.

The Area Health Education Center (AHEC) program (section 781) awarded a total of $661,305 to the 13 AHECs which indicated emphasis in geriatric education. These educational and training activities will benefit an estimated population of 298,164 (including trainees). Five of the awards were for special initiatives which included developing geriatric personnel certification programs and training in health promotion/disease prevention in older individuals.

All 37 Physician Assistant Training program grantees have instituted training activities in geriatrics. Funds in the amount of $106,291 were awarded among 11 of the grantees specifically for their efforts in this area. An estimated 1,774 trainees will be impacted.

Nine grantees receiving support for Podiatric Primary Care Residency Training under the new section 788(e) authority have included curricular emphasis in geriatric health which will benefit an estimated 72 residents. These grantees received a total of $145,650 for this purpose.

Under the program for Faculty Training Projects in Geriatric Medicine and Dentistry (section 789(b)), 23 grantees received a total of $3,100,000 to provide geriatric faculty training experiences for 38 physician participants and 26 dental participants.

DIVISION OF NURSING

The Division of Nursing administers grants awarded through four programs: (1) Advanced Nurse Education, (2) Nurse Practitioner and Nurse-Midwifery, and (3) Special Projects. The fourth program provides traineeship funds to schools which allocate these funds to individual full-time master's and postmaster's nursing students who are preparing to be administators, educators, researchers, nurse-midwives, nurse practitioners, nurse anesthetists, or other type of nurse specialist.

Activities relating to the aging in each of the first three programs during FY 1989 include the following.

Advanced Nurse Education Programs

—The Advanced Nurse Education authority supported 10 grants totaling $1,554,004 for gerontological and geriatric nursing concentrations in programs leading to a master's or doctoral degree in nursing.

Nurse Practitioner and Nurse-Midwifery Program

—Thirteen master's or postmaster's gerontological nurse practitioner programs received grant support totaling $1,460,069.

—Twenty-three family nurse practitioner master's programs which contain content related to care of older persons, were funded through grants in the amount of $3,676,727.

—Two OB/GYN and one women's health nurse practitioner master's programs, which contain content related to care of women from young adult through old age, received grant support totaling $307,654.

Special Projects Program

The Special Project grant program supported 21 projects, amounting to $2,312,811, which were related to gerontological nursing. Additionally, through an interagency agreement with the National Institute on Aging $100,000 were provided to assist in carrying out a project which is identifying health care behaviors practiced by community-based elderly. In FY 1989, $2,412,811 was spent on projects with a primary geriatric focus.

The Nursing Shortage Reduction and Education Extension Act of 1988 requires that 20 percent of program funds ($2,370,800 in FY 1989) be utilized for projects dealing with geriatric nursing.

The grants are supporting efforts in the community as well as institutions. Three of the activities target minority groups including rural black elderly females, a Navajo patient/family teaching program, and a project to teach Indian nursing home personnel. Several projects address continuing education for registered nurses and other nursing personnel while others combine clinical experience with elderly in rural settings.

OTHER ACTIVITIES

HRSE and AoA developed a plan to jointly disseminate gerontological curriculum materials to universities and other training institutions. A letter signed by HRSA and AoA officials accompanies disseminated materials.

Lists of AoA National Resource Centers and active AoA grants were distributed to the HRSA GECs. Materials about the GECs were sent to the AoA Resource Centers.

OFFICE OF RURAL HEALTH POLICY

The Office of Rural Health Policy (ORHP) serves as the focal point within the Department for coordinating nationwide efforts to strengthen and improve the delivery of health services to populations in rural areas. In particular, the Office advises the Secretary on the effects that the Medicare and Medicaid programs have on access to health care by rural populations, especially with regard to financial viability of small rural hospitals and the recruitment and retention of health professionals; coordinates rural health activities within the Department and with other Federal agencies, States, national organizations, private associations and foundations; administers a national grant program that establishes rural health research centers; provides staff assistance to the National Advisory Committee on Rural Health; and ensures that the Department invests adequate resources into research projects on rural health issues.

Aging-related issues are of particular importance to the Office of Rural Health Policy. One-third of the Nation's elderly live in rural areas and rural countries have, on the average, a higher percentage of their population over 65 years of age than their urban counterparts. These demographics create a situation in which rural hospitals, because they are increasingly dependent upon admissions of the elderly (i.e., Medicare beneficiaries), are especially vulnerable to the PPS payment formula.

Activities and initiatives of the ORHP which affect the rural elderly include:

—providing an impact analysis to the Health Care Financing Administration on proposed and final regulations which are expected to have a significant impact on small rural hospitals and the rural elderly that they serve;

—coordinating activities with the Bureau of Health Professions and the Bureau of Health Care Delivery and Assistance relating to the development and utilization of rural health professionals.

—meeting with personnel in other Federal agencies (e.g., the Alcohol, Drug Abuse and Mental Health Administration and the National Highway and Traffic Safety Agency) to work on issues which affect the health and health care access of rural elderly; and

—apprising interest groups, such as the National Council on the Aging and the American Association of Retired Persons, about ORHP and its activities.

The Subcommittee on Health Services of the National Advisory Committee on Rural Health designated the needs of the rural elderly as one of three priority areas at its first meeting.

In 1989 the Office awarded grants to five rural health research centers to conduct applied research, case studies and analyses focusing on the delivery, financing, organization, and management of rural health and care services. The Centers will provide data and policy research capabilities on a wide range of rural health concerns, including areas relevant to the elderly. The Office is also responsible for developing a rural health clearinghouse for the collection and distribution of rural health information. The clearinghouse will be implemented in 1990.

The grants were awarded to: Rural Health office of the Arizona Health Education Center, College of Medicine, University of Arizona, Tucson; Health Services Research Center University of North Carolina, Chapel Hill; Center for Rural Health Services, Policy and Research, University of North Dakota, Grand Forks; WAMI Rural Health Research Center, University of Washington, Seattle; and Marshfield Medical Research Foundation, Marshfield, Wisconsin. Awards for these five rural health research centers totaled $1.186 million for fiscal year 1989.

ACTIVE CONTRACTS
UNDER TITLE VII AND VIII OF THE PUBLIC HEALTH SERVICE ACT

Project **Funding FY 1989**

240-89-005
University of California, Los Angeles
405 Hilgard Ave.
Los Angeles, CA 90024-1406

"Study of the Adequacy of the Supply of Geriatric Faculty at all Levels of Medical Education"

Brenda Selser
(301) 443-6785
12/29/88-12/29/89 $169,568

This study will compile and analyze information on the adequacy of the current and future supply of geriatric faculty at all levels of medical education, i.e., undergraduate, residency, fellowship and continuing medical education, needed to prepare practitioners to meet the essential health care needs of the elderly.

Project **Funding FY 1988**

240-88-0030
Trustees of Boston University
80 E. Concord Street
Boston, Massachusetts 02118-2394

"Analysis of Issues Related to Exceptions to Limits to Medicare Reimbursement for Geriatric-Related Graduate Medical Education"

Brenda Selser
(301) 443-6785
06/30/88-10/28/89 $221,868

This study will report on the advisability of continuing or terminating the exception of the limitation on Medicare direct graduate medical cost reimbursement for initial residency periods in approved medical residency training programs. A limit on the number of years a resident may be counted as a full-time equivalent (FTE) for the purpose of Medicare reimbursement was established by the Consolidated Omnibus Budget Reconciliation Act. This study will also provide information on the adequacy of current gradate training programs in geriatrics covering all primary care specialties that train physicians to provide services to the elderly.

Project **Funding FY 1988**

240-88-0034
Boston University Medical Campus
Office of Sponsored Programs
80 East Concord Street
Boston, Massachusetts 02118-2394

"Geriatrics/Gerontology Curriculum for Preventive Medicine Residency Training Programs"

Glen R. Taylor
(302) 443-6820
06/30/88-06/30/90 $282,529

This contract was awarded for development of a geriatrics/gerontology curriculum module for preventive medicine residency training programs. The project will plan, develop, implement and evaluate a curriculum module that will provide the knowledge, skills and attitudes that preventive medicine residents will need in order to design, implement, direct and maintain preventive services for the elderly. The curriculum will be field tested in three residency programs, including one based in a health department. Resulting training materials will subsequently be distributed to all general preventive medicine and public health residency training programs.

Project **Funding**
FY 1988

240-88-0013
Education Development Center, Inc.
55 Chapel Street
Newton, MA 02160

"Development and Implementation of a Continuing Education Program to Prepare Practicing Nurses in Discharge Planning of Elderly Patients from Acute Care Settings"

Cheryl J. Vince
(617) 969-7100
06/21/88-06/20/90 $179,665

A short term training program for registered nurses in continuing care and discharge planning for elderly patients will be developed and carried out in partnership with Beth Israel Hospital of Boston, Massachusetts. This project will focus on coordination of patient services before, during and after hospitalization and transition between each stage of care.

Project **Funding**
FY 1988

University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-7490

"Self-Care Assessment of the Community-Based Elderly" (Interagency Cooperative Agreement between the Division of Nursing and the National Institute on Aging)

Dr. Gordon H. DeFriess
(919) 966-5011
08/05/88-08/04/91 $200,000

The project will prove a national sample database on self-care behaviors practiced by elderly persons in the U.S. not living in long-term care facilities. The database will be useful to a number of health and health related professions and service organizations whose efforts are directed toward assisting the elderly to continue to live in non-institutional settings for the maximum possible time through cost-effective health promotion and disease prevention interventions.

Project **Funding**
FY 1987

240-87-0042
Technical Resources, Inc.
3202 Monroe Street
Rockville, MD 20852

"Evaluation of Ongoing Development and Impact of PHS Funded Geriatric Education Centers"

Joel Ann Todd
(301) 231-5250
09/30/87-02/28/89 $131,909

This study will assess effectiveness of the Geriatric Education Center (GEC) Grant Program as an approach to achieving national geriatric education objectives, and will provide information related to program policies and approaches taken by various Geriatric Education Centers (GECs) prior to expiration and possible modification of the authorizing legislation. The contractor will analyze existing information comparing the thirty-one centers funded in FY 1987 in terms of a number of variables and obtain further information from a sub-set of nine centers to assess the impact of alternative approaches. The study will consider several overarching questions raised in a 1986 study and particularly focus on the validity of faculty development efforts in furthering geriatric education.

Project **Funding FY 1987**

240-87-0043
Technical Resources, Inc.
3702 Monroe Street
Rockville, MD 20852

"Geriatric Training Institute for Public Health Professionals"

Juel Ann Todd
(301) 231-5250
09/30/87-09/30/89 $225,154

This project will identify and convene a working group of practicing and academic public health professionals to identify issues and content concerning geriatrics as it relates to public health professionals; develop an intensive short-term curriculum using leaders in public health involved with geriatrics education; pilot-test the curriculum; and develop strategies and plans for implementing future training sessions for public health personnel. The result of the project will be a prototype Geriatric Training Institute including a cogent curriculum to address the issues and content necessary for public health professionals to plan, develop, manage, and evaluate programs intended to provide services for the future geriatric population. The Geriatric Training Institute will be designed to complement the Geriatric Education Centers grant program administered by the Bureau of Health Professions, HRSA. While Geriatric Education Centers focus upon medicine, nursing, and allied health professions, this project will focus upon public health personnel, a vital component of the health workforce in combating growing geriatric health care problems.

Project **Funding FY 1987**

240-87-0071
Baylor College of Medicine
One Baylor Plaza
Houston, TX 77030

"Fourth Workshop for Key Staff of Geriatric Education Centers (GECs)"

Robert Rousch
(713) 799-4611
09/29/87-05/01/89 $97,605

This fourth workshop in a series for key staff of Geriatric Education Centers (GECs) will: (1) identify strategies for accomplishing programmatic functions of GECs; (2) identify and assess issues and solutions in the management and organization of GECs; and (3) stimulate the improvement of services to target populations.

Project **Funding FY 1987**

240-87-0051
The Circle, Inc.
8201 Greensboro Drive, Suite 600
McLean, VA 22102

"National Conference on Geriatric Education"

Kathleen M. Corrigan
(703) 821-8955
09/30/87-01/30/90 $245,836

A National conference will be held to provide a national forum to address the interdisciplinary training of health professionals involved in care of the elderly. This opportunity will allow national leaders in geriatrics and geriatric education to present and discuss pertinent issues and approaches. Resulting recommendations will include strategies to enhance the interdisciplinary collaborative effort of caring for the elderly.

Project	Funding FY 1987

240-87-0066
Bogan Associates, Inc.
1110 Fidler Lane, Suite 516
Silver Spring, MD 20910

"Minority Aging and Geriatric Education Programs for the Health Professions"

Phyllis W. Ford
(301) 588-0132
09/30/87-08/01/88

A working conference brought together approximately 25 non-Federal individuals with recognized expertise in minority/aging issues, educators who are now undertaking work to respond to the absence of curriculum materials or exemplary learning experiences related to these concerns, approximately 25 Federal staff of programs assisted such efforts, and a few private and public sector health leaders involved with these issues. Discussion of the status of the development of knowledge and experience with new educational approaches to ethnicity and aging focused on possibilities for collaboration and new directions for educational programs. In addition to providing results to health professions schools, this conference resulted in a publication on curriculum concerning race, ethnicity and aging for selected health professions.

Project	Funding FY 1988

240-88-0066
Midwest Geriatric Education Center
Marquette University
604 North 16th Street, Room 020H
Milwaukee, WI 53233

"Fifth Workshop for Key Staff of Geriatric Education Centers"

Jesley Ruff, D.D.S.
(414) 224-3712
09/30/88-11/30/89 $74,148

The purpose of this contract was to plan, develop, and conduct a workshop, including logistical support, to enable key staff from both long-existing and newly established Geriatric Education Centers (GEC) to interact, exchange information, share strategies and jointly plan needed actions to accomplish GEC purposes. Based on actions established by the four previous workshops, such as task forces on linkage building, curriculum development, issues and trends, and evaluation -- further cooperative efforts were explored and implemented. Also, cooperative efforts with other existing geriatric resources - i.e., geriatric assessment units, CHCs, GRECCs, AHECs were incorporated into the workshop objectives. Proceedings of the workshop will be available Spring, 1990.

Project **Funding FY 1988**

HRSA 88-376(P)
Harvard College
Holyoke 440, 1350 Massachusetts Avenue
Cambridge, MA 02138

"Training Needs in Geriatric Dentistry of the Practicing Dentist"

Gerard C. Kress, Jr., Ph.D.
(214) 828-8431
07/21/88-01/24/89 $22,047

This project calls for collection and categorization of the various materials and training methods used to provide continuing dental education to practicing dentists. A committee of experts in continuing dental education and experts in geriatric dentistry would then, using published data on the knowledge requirements for treating the geriatric dental patient, establish criteria for what knowledge and skills are required by a dentist to treat older persons. The committee would then test the collected information on presently available geriatric CDE against the established criteria to determine what areas of geriatric CDE require improvement. The committee will then determine what the best methods would be for providing the practicing dentists with information on treating older persons.

NATIONAL INSTITUTES OF HEALTH

NATIONAL INSTITUTE ON AGING

I. INTRODUCTION

Aging research is entering an era of unprecedented challenges and opportunities. Because no single process explains the multiple and interacting changes that occur with age, the Federal Government, through the National Institute on Aging (NIA), implements a dynamic research program that identifies promising clues to many of the biomedical, social, and behavioral changes associated with age. Simultaneously, the Institute supports applied research efforts leading to interventions that have the potential to ameliorate the consequences of such common problems as falls and urinary incontinence. Of equal importance, the Institute recognizes its role as a leader in aging research by supporting an active training and career development effort.

NIA has a major interest in the diagnosis, treatment, and cure of Alzheimer's disease, as well as in investigations into the basic mechanisms of aging; reducing fractures in frail older people; researching health and effective functioning in old age; improving long-term care; fostering an increased understanding of aging needs for special populations; and improving career development training opportunities in geriatrics and aging research.

Other NIH institutes also support research on aging or aging-related concerns. Principal among these are the National Cancer Institute (NCI); the National Heart, Lung, and Blood Institute (NHLBI); the National Institute of Dental Research (NIDR); the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); the National Institute of Neurological Disorders and Stroke (NINDS); the National Institute of Allergy and Infectious Disease (NIAID); the National Eye Institute (NEI); the National Institute of Arthritis and Musculoskeletal and Skin Disease (NIAMS); the National Institute on Deafness and Other Communication Disorders (NIDCD); the Division of Research Resources (DRR); the National Center for Nursing Research (NCNR); and the Office of the Director (OD).

II. CURRENT RESEARCH AND PRIORITIES

A. ALZHEIMER'S DISEASE

Since the mid 1970's, research on Alzheimer's disease has become a high priority for the Nation. As it has become increasingly apparent that "senility" is not a normal part of aging, investigators from many fields of science have begun to study what causes this disease, and how it can be diagnosed, treated, and perhaps someday, cured.

The search for the cause of Alzheimer's disease has focused on the role of genes, toxins, infectious agents, head trauma, stress, and changes in the immune system, the endocrine system, and normal metabolic processes. Scientists are looking at each of these as possible leads to what causes Alzheimer's disease, either alone or in combination. Others are exploring the possibility that the risk of Alzheimer's disease might be increased by age-related changes in a healthy brain.

The purpose of this report is to review current research on the prevalence of Alzheimer's disease, the mechanisms of the disease, and therapies and strategies that have been proposed for patients and their families. In reporting on the prevalence of Alzheimer's disease we will demonstrate that this is a growing public health problem with worldwide impact. In focusing on the mechanisms of Alzheimer's disease, we hope to turn the power of the microscope up and examine the fundamental questions that scientists are struggling with in their research on the aging brain. In looking at therapies, we will review some of the latest experimental drugs.

The highlights presented here represent only a sample of the NIH research on Alzheimer's disease that is supported or conducted by the National Institute on Aging (NIA), the National Institute of Neurological Disorders and Stroke (NINDS), the National Institute of Allergy and Infectious Diseases (NIAID), the National Institute of Child Health and Human Development (NICHD), the National Institute of Environmental Health Sciences (NIEHS), the Division of Research Resources (DRR), and the National Center for Nursing Research (NCNR). Within the Federal Government, research on Alzheimer's disease is also supported by the National Institute of Mental Health, the Administration on Aging, the Health Care Financing Administration, the Centers for Disease Control, and the Veterans Administration.

1. NIA Research Advances

Scientists Revise Estimates on Prevalence of Alzheimer's Disease

Although the exact numbers are not known, studies done in the mid 1970's estimated that 2.5 million older Americans suffer from Alzheimer's disease. Now, NIA-supported scientists in East Boston, MA have given us reason to believe that the current number may be closer to 4 million, and that this figure may double or triple in the next century if more is not done to cure or prevent the disease.

Beginning in 1982, Dr. Denis Evans and his colleagues at Harvard Medical School conducted a census of 32,000 people living in East Boston, a well-defined, stable, working-class community. More than 80 percent of the 4,485 residents over age 65 then participated in the first stage of examination by responding to a questionnaire concerning medical and social problems, and by taking a brief memory test. Of these, 467 were selected for more extensive evaluation to rule out the presence of conditions other than Alzheimer's disease. The evaluation included a neurological examination, a brief psychiatric evaluation, laboratory tests, a brief review of medical history, and review of current medications.

What Dr. Evans and his colleagues found was that more than 10 percent of the people over age 65 had probable Alzheimer's disease, and the prevalence of the disease rose more rapidly with age than previously suspected. Of those people between the ages of 65 and 74 years, 3 percent had probable Alzheimer's disease, as compared to 18.7 percent in the age 75 to 84 year group and a striking 47.2 percent over age 85.

This translates to some 4 million people who might currently suffer from Alzheimer's disease in this country. According to Dr. Evans, given Census Bureau projections for the numbers of people 85 and older, there could be a seven-fold increase in the numbers of oldest victims of Alzheimer's disease contributing to a total of between 10 and 14 million people over 65 with Alzheimer's disease by the middle of the next century.

The East Boston study is unique in several respects. First of all, the investigators did not look for Alzheimer patients in institutions, but rather focused their attention on people living in the community, where some four-fifths of all dementia victims may live. East Boston is a particularly interesting community in this regard, since a large proportion of disabled people are cared for at home. Second, given the makeup of the East Boston community, they were able to study much larger numbers of very old people than have been included in previous studies. Finally, they examined people who performed well on the initial screening test, as well as those who performed poorly. As a result, Dr. Evans thinks that these estimates have allowed him to develop the most accurate picture of Alzheimer's disease in the U.S. population to date.

Remarkably, Dr. Evans and his colleagues believe that even these estimates may be too conservative, in part because of assumptions that the Census Bureau has made about future numbers of older people. In making their estimates, Dr. Evans and his colleagues used the middle range of estimates provided by the Census Bureau for the 21st century. If, as some scientists have speculated, medical advances and other factors result in a greater proportion of people living to extreme old age, then the numbers of Alzheimer patients in the next century would be much higher.

Conservative or not, these figures signal the growing magnitude of Alzheimer's disease as a major public health problem over the next several decades.

Studies in China Show Surprising Differences in Dementia Rates

The future impact of Alzheimer's disease is as important an issue in many other countries around the world as it is in the United States. With worldwide increases in average life expectancy, both industrialized and developing nations are beginning to look at the prevalence of Alzheimer's disease and how it will affect their future.

A recent study of more than 5,000 older residents of Shanghai, China found that Chinese people are just as likely to suffer from severe dementia as Americans. This contradicts previous research that suggested remarkably low numbers of Chinese suffering from Alzheimer's disease, multi-infarct dementia, or other serious dementias.

A research team including Dr. Robert Katzman, director of the NIA-supported Alzheimer's Disease Research Center at the University of California, San Diego, recently found that rates for severe dementia in one area of China are nearly identical to those found in the United States, with one exception: The rate of severe cognitive impairment is nearly three times higher for Chinese women over age 65 than for their American counterparts.

According to the investigators, this may in part be due to the very high illiteracy rates, particularly among the women, in the population they studied. It has long been known that level of education has a significant impact on ability to learn, reason, remember, and perform on tests of mental ability. It is unclear what impact this might have had on the study results.

Since this study looked at the overall prevalence of dementia, future research will focus on the prevalence of Alzheimer's disease as well as other specific causes of cognitive impairment in China, and on gender differences. It may be that such studies of Alzheimer's disease in different cultures will provide a more accurate assessment of worldwide prevalence, and might also reveal some clues to the cause or causes of the disease.

How Common Is Dementia in Black Populations?

A study of older white and black community residents of a five-county region of North Carolina has suggested that the prevalence of dementia among blacks may be distinctly greater than among whites, and that black women are particularly affected.

NIA-supported scientists Drs. Albert Heyman, Gerda G. Fillenbaum and colleagues at the Duke University Medical Center also found that while the rate of dementia among white men and women was basically equal in this study, more than twice as many black women as black men showed signs of dementia.

This is not the first time that research has shown blacks to be adversely affected by dementia. Nonetheless, the investigators caution that these are preliminary data that require further study. Future research will focus on how much of dementia among blacks is actually due to Alzheimer's disease and how much is related to hypertension and cerebrovascular disease.

Scientists Study How and Why Brain Cells Die

In recent years, it has become evident that the key questions in the study of Alzheimer's disease are those that address what causes nerve cells to dysfunction and why specific groups of brain cells die.

For years we have known that neurofibrillary tangles and neuritic plaques are classic markers of Alzheimer's disease. With no way to diagnose the disease in living patients, physicians have depended upon the number and density of these lesions to diagnose the disease at autopsy. Recently, there has been a debate in the scientific community about whether these markers, particularly the neuritic plaques, signify the debris left by dying cells, or whether they mark the onset of the disease. Neuritic plaques are dense, insoluble deposits of amyloid protein.

Some scientists, such as Dr. Donald Price, director of the NIA Alzheimer's Disease Research Center at The Johns Hopkins University, think that amyloid deposits are an end stage event in the disease process. (See NINDS section of this report.)

On the other side of the debate, are NIA grantees Dr. Carl Cotman at the University of California at Irvine, Dr. Dennis Selkoe at Harvard Medical School and Brigham and Women's Hospital in Boston, MA, and Dr. Rachael Neve and her colleagues at Children's Hospital in Boston.

Earlier this year, Drs. Cotman and Selkoe announced that they had found that a fragment of the protein in neuritic plaques may possess the ability to regulate growth of nerve cells in the healthy human brain. Until now, scientists have not known what role amyloid protein plays, if any, in healthy brain tissue or why an increasing number of large amyloid clusters appear in the brains of Alzheimer patients.

Earlier NIA-supported studies revealed that the abnormal amyloid protein is made up of fragments of a larger protein that is normally spread across nerve cell membranes. Scientists also have discovered the approximate location of the gene for the fragment, called the amyloid precursor protein, and have identified the building block amino acids that constitute it.

In their recent investigations, Drs. Cotman and Selkoe synthesized the first 28 amino acids of the amyloid protein and tested the effects on this synthetic peptide on nerve cells grown in tissue culture. Nerve cells grown in tissue culture do not survive long, but in the presence of the synthetic peptide, the cells stayed alive for longer periods of time. These results demonstrated that amyloid has a trophic, or growth enhancing, effect on nerve cells.

On the basis of these experiments, Drs. Cotman and Selkoe speculate that plaque formation in Alzheimer's disease may signal the nerve cells' attempt to mount a defense against the degenerative process and to compensate for the damage that occures as the disease progresses.

While Drs. Cotman and Selkoe have focused attention on the possible growth enhancing capabilities of amyloid, Dr. Rachael Neve is looking at a different characteristic. She and her colleagues have found that a portion of the amino acid chain that makes up the amyloid precursor protein might be toxic to nerve cells.

Dr. Neve and her colleagues genetically altered a group of tumor cells so that they contained portions of the gene for the amyloid precursor protein. She then treated the cells with nerve growth factor which under normal circumstances, would cause the cells to differentiate. Instead, a majority of the altered cells degenerated and died. In a second experiment, they added the transfected cells to cells taken from rat hippocampus. The hippocampus is an area of the brain that is essential for learning and memory and that is severely affected in people with Alzheimer's disease. This time, within 3 days, all of the brain cells had died.

Dr. Neve speculates that the amyloid precursor protein is only toxic when a portion of the peptide—the first 105 amino acids including the 28 amino acids examined by Drs. Cotman and Selkoe—is present. This work suggests that altered processing of the amyloid precursor protein may activate this neurotoxic peptide.

If, as these investigators speculate, the production of an abnormal, malfunctioning amyloid protein is among the first in a series of events that take place as brain cells begin to die, then we might be one step closer to finding out what causes the disease and how to cure or prevent it. More immediately, the study of amyloid may pave the way to a diagnostic test for patients who complain of serious memory loss.

Marker for Alzheimer's Disease Found in Skin

What happens when an older person begins to show signs of memory loss and confusion? With luck, someone—perhaps a relative—will realize the importance of going to a physician to find out what is causing the problem, if it is curable and, if it is not, what can be done to help. The patient's first contact with a health professional is likely to be an internist, a geriatrician, or a family practitioner. Because of the variety of conditions that can mimic Alzheimer's disease—and also because of the wide range of symptoms—the patient might be examined by a neurologist or a psychiatrist. Before the process has been completed, the patient might be subjected to a complete medical examination with blood tests, laboratory test, tests of mental status, and other specialized tests such as computed tomography or other brain scans. In the end, the diagnosis of Alzheimer's disease will be made by excluding other possible conditions. The accurate diagnosis of the disease clearly represents a challenge for physicians and an emotional and financial crisis for older people and their families.

Building upon his research in the area of amyloid, Dr. Dennis Selko this year announced that a simple, reliable diagnostic test may be on the horizon. Dr. Selko and his colleagues have found diffuse deposits of amyloid protein in the skin, the tissues just beneath the skin, and in the intestines of patients with autopsy-confirmed diagnoses of Alzheimer's disease.

The investigators examined tissue samples taken at autopsy from 11 people who had Alzheimer's disease and 26 who did not. Ten of the 11 Alzheimer cases showed some signs of amyloid outside of the brain, as compared to only 3 of the 26 people who had died of other causes. Those 3 were all older than 77 years old when they died. It has long been known that all of the hallmarks of Alzheimer's disease are seen to a lesser degree in normal aging.

In addition to this work with autopsy samples, Dr. Selko and his colleagues also examined tiny pieces of fresh skin taken from the forearms of an 85-year-old Alzheimer patient and a 64-year-old healthy subject. The Alzheimer tissue contained amyloid; the other did not.

According to Dr. Selkoe, the next step might be to look for signs of amyloid circulating in the bloodstream. This could indicate how amyloid collects in the brain of Alzheimer patients and also lead to the development of a blood test to diagnose the disease.

Scientists don't yet know if a test of this sort would be reliable in the early stages of Alzheimer's disease. Nonetheless, Dr. Selkoe's research supports speculation that Alzheimer's disease is not limited to the brain, as well as the theory that an abnormal form of amyloid is implicated early in the disease process. If this work is corroborated and expanded, it could be the key to diagnosing and, eventually, preventing Alzheimer's disease.

A Unifying Hypothesis for Brain Aging and Alzheimer's Disease

Even if amyloid begins to accumulate early in the course of Alzheimer's disease, something happens to trigger the event. NIA scientist Dr. Zaven Khachaturian heads a group of experts on brain aging who have offered one possible explanation.

In the quest for a common mechansim to explain what happens to the brain in healthy aging and disease, Khachaturian and others are turning their attention to an element that is essential to all plant and animal life—calcium. All cells, and neurons (nerve cells) in particular, depend on calcium to carry out their activities. Calcium not only serves as a signal that initiates such cellular activity as neurotransmitter (chemical messenger release, it is needed for neuronal growth and repair, enables cells to de-code genetic messages, and regulates proteins involved in removing cellular debris.

An association between normal brain aging and Alzheimer's disease has been noted for some time. As noted above, the same pathology (plaques and tangled nerve cell fibers) that characterizes the disease is also seen, to a lesser extent, in normal aged brain. Some would go so far as to suggest that most, if not all, people have a pre-clinical form of Alzheimer's disease and would develop the condition were they to live long enough. Whether or not this is the case, it points to the possibility of a common mechanism at the root of brain aging and dementia.

That mechanism may involve the regulation of calcium within cells. Normally, the amount of calcium inside excitable cells such as muscle or nerve cells is very low compared to that outside the cell. Nerve cells have several mechanisms for maintaining low levels of calcium within the cell. These mechanisms include channels inside cell membranes that allow calcium to be transported to and from the cell. Other calcium regulators include energy-driven chemical pumps that expel excessive calcium, storage or sequestration systems that act as sponges, soaking up excess calcium, and special proteins that bind to calcium, thus preventing its activity in the cell. There is growing evidence that suggests the aging process affects the efficiency of many of these calcium regulatory systems. It appears that in Alzheimer's disease these systems are affected to such a degree that the normal operation of cells may be disrupted. It has been known for some time that sudden large increases in calcium levels inside a nerve cell could lead to cell death. Now, investigators have begun to speculate that even small, but sustained, disruptions of calcium balance (homeostasis) within the cell could be responsible for many of the changes that occur in normal brain aging and in Alzheimer's disease. It is for this reason that many scientists are becoming interested in the problem of why and how calcium regulation changes in aging.

Numerous investigations are underway to identify calcium channels within cell membranes and see whether they behave differently with age. These membranes are composed of two layers of a fatty substance called lipids. Sandwiched inside this lipid bilayer are proteins that transport calcium to and from the cell. Last year's report highlighted Dr. Jay Pettegrew's research on irregularities in the phospholisid makeup of cell membranes in Alzheimer's disease. Now it has been shown in experimental artificial membranes, that changes in the make-up of membrane phospholipids affect the efficiency of membrane-imbedded proteins.

Membrane irregularities may explain the changes in membrane transport function that have been observed by another investigator. Dr. Mary L. Michaelis and coworkers at the University of Kansas in Kansas City have shown that membrane transport systems clearly become less efficient with age in health laboratory rats. Two different systems are involved in transporting calcium across the membrane in nerve endings or terminals. One system depends on sodium and the other works via an enzyme protein complex called magnesium-ATPase. Both require cellular energy and both need calcium to initiate transport activity. Using healthy aged rats, Dr. Michaelis finds that these systems are compromised in their ability to transport calcium. Previous researchers have found age-related impairment of calcium transport activity in cells outside the central nervous system (CNS). However, Dr. Michaelis is the first to report decreased activity in the membranes of CNS neurons.

It is unknown whether impaired calcium channel functioning is caused by changes in the membrane's lipid environment or by altered transport proteins within it. What scientists do know is that deficits in membrane transport functioning could lead to prolonged, and detrimental, elevation of calcium inside the cell.

There is evidence that defects occur in calcium-regulating systems other than those involved in membrane transport. Studies carried out at the University of Colorado at Boulder suggest calcium may be elevated in the brain cells of older subjects because of an impaired ability to store excess calcium. Using electron microscopy, NIA-supported scientist Dr. Eva Fifkova has demonstrated that in aged laboratory animals greater amounts of calcium are found in the cytoplasm or fluid within dendrites, the fine nerve endings where cell-to-cell communication takes place. One of the most important sites where calcium is stored is the smooth endoplasmic reticulum (SER), specialized compartments within dendrites. Dr. Fifkova reports that the number of these SER compartments decreases with age while the amount of calcium within the cytoplasm increases. This increase of calcium occurs in cells in the hippocampus, which could eventually lead to degeneration of dendrites, and ultimately cell death, as occurs in Alzheimer's disease.

Electrophysiological studies suggest that calcium clearance may be slower with age. Dr. Dean O. Smith at the University of Wisconsin draws this conclusion from studies of neurotransmitters released at the junction of neurons and muscles in rats. This NIA-supported study was spurred by the knowledge that neurotransmitter release requires calcium to be released from the cell and is, therefore, an indication of how much calcium is inside the cell. Because neurotransmitters cannot be measured directly, Dr. Smith used special techniques to record the electrical activity generated by such transmitters. The electrical recordings were prolonged in the older animals, suggesting that an overabundance of calcium is being released from the cells.

Additional evidence that calcium is elevated in aged neurons comes from NIA-supported investigations carried out at Wake Forest University's Bowman Gray School of Medicine in Winston-Salem NC. After studying nerve impulses in laboratory rats for over 10 years, Dr. Philip W. Landfield may have discovered the physical basis of memory impairment. Using hippocampal cells from young and old rats, Dr. Landfield measured the electrical potential of neurons after activation. After sending nerve impulses cells normally return to a state called "afterhyperpolarization" (AHP), during which time they cannot generate another impulse. In aged cells, the AHP time is prolonged. Because AHP depends on calcium, Landfield and colleagues suspected that excess calcium inside the cell was the culprit. To test this hypothesis, the Wake Forest team bathed the cells in a solution high in calcium. AHP was prolonged, as expected. However, to ensure that calcium was indeed the cause of the prolonged AHP state, the researchers exposed the cells to solutions either high or low in calcium. The results confirmed the calcium link, with AHP prolonged only in cells exposed to high levels of calcium.

Dr. Landfield has also studied the aging neuron's ability to receive signals known as "potentiation." This ability is impaired in aged rat hippocampal cells. Knowing that magnesium effectively blocks calcium activity in tissue culture, Dr. Landfield decided to test the effects of magnesium in living animals. The research team compared a control group of rats to one fed a diet rich in magnesium. The animals were then anesthetized, and using electrodes to measure the cells' electrical activity, they found potentiation enhanced in the treated group. Of even greater practical importance, behavioral task performance improved dramatically. These results were noted in both young and aged animals. Dr. Landfield continues to explore these age-related phenomena in hopes of finding the mechanism responsible for increased calcium influx in aged neurons.

The evidence from these four studies on defective calcium regulation provide an interesting, albeit still speculative, explanation that may tie together many of the hitherto unrelated pieces of the Alzheimer puzzle.

A plausible reason for the disruption of calcium homeostasis was presented earlier this year at a 3-day symposium jointly sponsored by NIA and several pharmaceutical firms with an interest in neuronal plasticity. (Plasticity is the cell's ability to sprout new dendrites.) Dr. Robert M. Sapolsky from Stanford University presented the results of his research on the effect of glucocorticoids in the brain of aged rats. Glucocorticoids or GCs are a type of stress hormone produced in the adrenal gland and that circulate in the blood. Prolonged exposure to elevated levels of GCs results in a disruption of glucose which provides energy to cells. This energy depletion can in turn affect calcium activity. Dr. Sapolsky explains that cells in the hippocampus have a large number of GC receptors which makes them particularly susceptible to damage from prolonged exposure to these steroid hormones. While Dr. Sapolsky finds only a 30 percent reduction in glucose transport, he speculates that this may be enough to render a cell vulnerable to injury from a variety of neurotoxins or other environmental insults. The energy disruption seen by Sapolsky is corroborated by evidence of reduced glucose utilization in areas of the brain affected by Alzheimer's disease.

While agreement on the calcium hypothesis is far from unanimous, the idea that there may be a common pathway to the changes seen in aging and dementia is gaining increasing acceptance in scientific circles. Extending research on cellular mechanisms of calcium regulation will yield important answers about the role of this essential element in health and disease.

Growth Factors: Augmenting a Cell's Natural Ability to Repair Itself

At the same time that some scientists are studying the mechanisms of Alzheimer's disease, others are looking for ways to halt or reverse the disease process.

An exciting area of inquiry has opened up in the area of neuroplasticity as it is mediated by nerve growth factor (NGF). NGF is one of a number of growth factors, or specialized proteins, that promote cell growth and repair. Extending previously reported work supported by a grant from NIA, Dr. Fred H. Gage of the University of California, San Diego, has successfully transplanted tissue into damaged brains of mice, resulting in increased cell survival. The transplanted tissue was derived from connective tissue cells called fibroblasts which were genetically modified to secrete NGF. The grafts prevented the degeneration of cholinergic neurons, the same type of neurons affected in Alzheimer's disease. It is too early to tell how the treatment affects functioning, and important questions remain concerning the optimal methods for tissue grafting.

Meanwhile, researchers at the Johns Hopkins University Alzheimer's Disease Research Center are evaluating the usefulness of NGF in animal models more closely related to humans. Drs. Vassilis E. Koliatsos and Linda C. Cork are attempting to deliver NGF to the brains of nonhuman primates (monkeys) with impaired cholinergic function. They hope to establish the effectiveness of this treatment in restoring cell function and reversing associated memory deficits. These studies pave the way for future therapies which may one day restore the cell's ability to reconstruct neural pathways in the brain damaged by injury or disease.

THA Study Continues

In mid-July, NIA grantee Dr. Kenneth Davis at the Mt. Sinai School of Medicine in New York City announced that analysis of early results from the study of the effects of THA in patients suffering from Alzheimer's disease were not clear-cut enough to halt the trail, but were encouraging enough to warrant continuation of the study.

THA—or tetrahydroaminoacridine—is one of several drugs being tested as a possible means to control memory loss in patients with Alzheimer's disease.

The announcement followed examination of data on the first 100 patients by a small executive committee and presentation of the committee's recommendations to the NIA. The 16-site trial, which began in August 1987 and was designed to test the drug in 300 people, is being coordinated by Mount Sinai in cooperation with the Warner Lambert Co. and the Alzheimer's Association.

According to Dr. Davis, the results of the interim analysis of the first 100 patients didn't answer the question of whether the drug would be effective in the general population of Alzheimer patients. As the study approaches its conclusion, perhaps sometime in 1990, the investigators hope to determine the value of THA as a treatment for memory problems in Alzheimer patients.

Compound Enhances Memory in Rats: Clinical Trials Underway

While Dr. Davis and his colleagues continue their work on THA, other investigators are looking for ways to slow or reverse the more serious symptoms of Alzheimer's disease.

A naturally occurring compound found in many regions of the brain may enhance certain memory functions known to deteriorate with age. NIA grantee Dr. Carol A. Barnes at the University of Colorado at Boulder has reported some improvement in memory of aged rates after administering acetyl-l-carnitine a derivative of carnitine (also known as Alcar). The study was a cooperative effort including the NIA Gerontology Research Center and the Johns Hopkins University, both located in Baltimore, MD.

Dr. Barnes and her associates noted improvement in the rats' performance on tasks that involved long-term memory processes. Autopsy studies indicated that chronic administration of Alcar reduced the loss of cells in the hippocampus. Carnitine mimics the action of acetylcholine, a chemical which is necessary for nerve cell communication and which is depleted in Alzheimer's disease. Using techniques to measure electrical activity of brain cells in rodents, Dr. Barnes has shown that there is an age-related decay in spatial memory, the ability to remember physical orientation of a person or object. These are the types of tasks in which the Alcar-treated rats improved, leading to the notion that the compound may improve thinking, learning, and memory by preserving connections at the junctures between nerve cells.

Because of the improvement seen in rats and its apparent lack of toxicity, clinical trials of Alcar are now being carried out in the United States and several other countries to determine the drug's ability to alleviate the symptoms of Alzheimer's disease. In this country, a limited number of patients will be treated with the compound in a four-site study sponsored by an Italian pharmaceutical company and directed by Dr. Richard Mayeux at Columbia University's College of Physicians and Surgeons. The outcome of this study will help determine the future utility of Alcar for treating Alzheimer's disease specifically, and whether it might be a useful means to reduce age-related memory loss in general.

New Technique May Improve Efficiency of Drug Trials

Scientists conducting clinical trials with Alzheimer patients are plagued by several problems. First of all, there is no definitive diagnostic test for Alzheimer's disease. Invariably, then, the research population includes people with conditions that mimic the disease. Second, the symptoms and course of Alzheimer's disease vary considerably among patients. This means that large numbers of patients are needed in drug trials to determine whether or not the drug has any effect. To address this latter problem, NIA intramural scientist Dr. James Haxby has developed a method to predict an individual patient's rate of decline.

Following patients for 3 to 5 years, Dr. Haxby noticed that some patients go through an early plateau phase that may last as long as 3½ years. The only apparent symptom in these mildly demented patients is memory loss; other intellectual abilities remain unchanged. Using a global test of intelligence known as the WAIS-IQ test, Dr. Haxby found a remarkably steady rate of decline following the initial plateau phase of the disease. Thereafter, patients begin to have problems processing complex information, understanding abstract reasoning, and planning. The test also shows a steady rate of decline in those patients with more advanced symptoms. It seems that while different patients can have markedly different rates of decline, the rate of decline for individual patients varies little from year to year. Consequently, a patient's future performance can be predicted based on an established pattern.

Dr. Haxby's approach might be valuable not only in evaluating the effectiveness of experimental therapies, but could help physicians and caregivers plan for the care and treatment of individual Alzheimer patients by providing more accurate prognostic information.

Helping Families Manage Alzheimer's Patients at Home

Most Alzheimer patients live at home where they receive care and assistance from friends and relatives. As the disease progresses, a patient's need for continuous care places a great deal of stress on the caregiver. In order to determine how best to assist families and reduce the burden of care, NIA-supported scientists are studying the most important causes of stress among caregivers.

While most research in this area focuses on the caregiver-patient relationship, one investigator has shifted his attention to stress-inducing factors beyond the caregiving situation. Dr. David A. Chiriboga and co-workers at the University of Texas Medical Branch in Galveston have compared various stressors that affect caregiver wellbeing. They find that what happens at work, having a problem child in the household, and other social or family conflict, often contribute more to caregiver stress than the day-to-day responsibilities of providing care.

These findings suggest that any test of the burden of care needs to consider the broad context of life in the family and at work. They also indicate that any program designed to reduce the stress of caregiving needs to involve strategies tailored to individual circumstances.

At the same time that investigators are exploring ways to identify and alleviate caregiver stress, others are looking at the health consequences of patient-caregiver interactions for both caregivers and patients.

At the University of Washington in Seattle, Dr. Peter P. Vitaliano and colleagues are examining the health impact of caregiver personality and coping styles on Alzheimer patients as well as on caregivers themselves. The investigators looked at the relationship between patients and their caregivers over an 18-month period and found an association between caregivers who express negative emotions and caregiver health.

Using psychological tests and personal interviews, the Washington team found that caregiving spouses who are prone to criticize patients, who express hostility toward them, or become overinvolved with them, tend to perceive that their burden is greater than caregivers who are not so prone. This perception of increased burden was especially evident in caregivers of patients least able to care for themselves. According to Dr. Vitaliano, Alzheimer patients with over-critical caregivers may function below their capabilities which may further exacerbate the caregiver's heightened emotional response.

Dr. Vitaliano finds that this pattern of negative behavior and poor patient functioning is also associated with a lifetime of poor health in the caregiving spouse. Specifically, he finds that spouses who express high levels of emotion are almost three times more likely to have a history of cancer or cardiovascular disease than spouses with low levels of expressed emotion.

In sum, this study of husband-wife pairs suggests that caregiver reactions may be related to patient functioning as well as to poor health in the caregiver. The researchers believe strongly that anger is a major risk factor for distress in caregivers.

Therefore, they advise health professionals to be alert to signs of anger in caregivers and consider referring these caregivers to support groups or individual therapy to help them cope with the frustrations of their responsibilities.

2. Research Advances Supported and Conducted by Other NIH Institutes

NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE

As the principal supporter of neurological research in the United States, the National Institute of Neurological Disorders and Stroke (NINDS) is committed to the study of the brain in Alzheimer's disease. NINDS-supported scientists are pursuing basic studies of brain abnormalities associated with this illness, and clinicians are working with patients to improve methods of predicting and diagnosing the disease.

Studying the Brain

In Alzheimer's disease, cholinergic neurons in the basal forebrain frequently undergo selective degeneration. In studying adult rats with experimental brain lesions, NINDS grantee Dr. Franz Hefti of the University of Southern California in Los Angeles has observed that long term treatment with nerve growth factor prevents loss of cholinergic cells. The treatments were equally effective in young and old rats. While various growth factors can promote cell function, NGF has the benefit of acting selectively on the relevant cholinergic cells.

Meanwhile, NINDS-supported scientists at The Johns Hopkins University School of Medicine have been accumulating evidence that aging monkeys experience the same kind of biological and behavioral deterioration as humans. The nonhuman primates therefore may provide a model for studying the progression and treatment of Alzheimer's disease.

The team, led by Dr. Donald Price, found that as macaques lose their ability to remember, they develop neuritic plaques similar to those often found in aging humans. Dr. Price further found tangled nerve fibers in the brain of a monkey that had perfomed poorly on various tests. This is the first sign that these tangles, a hallmark of Alzheimer's, are also found in monkeys.

These studies have suggested one possible order in which Alzheimer's brain abnormalities evolve. In these investigations, fiber abnormalities would appear to develop first, leading to abnormal neurons and finally the deposition of amyloid protein in plaques.

Another NINDS grantee at Johns Hopkins, Dr. Joseph Coyle, has been studying the mechanisms that regulate production of acetylcholine. Low levels of this brain chemical have been linked to memory loss, learning difficulties, and other cognitive impairments typical of Alzheimer's disease. Dr. Coyle found that the drug galanthamine, which inhibits an enzyme that breaks down acetylcholine, improves the ability of mice to remember how to solve a maze. This suggests that galanthamine might help reverse cognitive deficits.

Predicting and Diagnosing Disease

It is difficult to differentiate early Alzheimer's disease from other maladies such as depression, yet the ability to do so is critical in ensuring proper diagnosis and eventually treatment. Scientists therefore are searching for better methods of disease prediction and diagnosis.

A team of NINDS grantees, led by Dr. Miriam Aronson at Albert Einstein College of Medicine of Yeshiva University in New York City, has found that memory testing is a promising tool for predicting developent of dementia. By analyzing memory tests given 1½ years before diagnosis, the scientists can improve prediction of the condition's onset over the present rates. Although these continuing studies are preliminary in nature, they suggest that memory testing may be useful in facilitating preclinical detection of dementia.

The Aronson study, which has followed 488 people over the age of 75 for 9 years, also has substantiated preliminary evidence that women are more susceptible than men to developing dementia, particularly the progressive type associated with Alzheimer's disease. It also appears that women with a history of actual or silent (detected only by electrocardiogram) myocardial infarction are especially vulnerable.

Other scientists have been looking for changes in cerebral physiology that may signify early Alzheimer's disease, as distinct from other forms of dementia. Using a brain imaging technique called positron emission tomography (PET), investigators make images of the brain after a subject has been injected with a tracer chemical, which acts as a radioactive tag for glucose. The images reveal rates of glucose metabolism in different areas of the brain.

A team of NINDS grantees, led by Dr. David Kuhl at the NIA-supported University of Michigan Alzheimer's Disease Research Center in Ann Arbor, previously had found that metabolic rates are distinctively abnormal in people with probable Alzheimer's disease as well as in symptomatic patients who do not yet meet diagnostic criteria for the disease. More recently, the team has found an exceptional tracer chemical, TRB, for determining the nature and distribution of brain acetylcholine receptors. TRB, which the scientists plan to use in human studies, is easier to make than previous tracers and achieves better distribution in the brain.

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

Little evidence implicates an infectious agent as the cause of Alzheimer's disease. Nonetheless, NIAID is interested in Alzheimer's disease because several similarities between it and known viral diseases exist. Overlapping interest include studies of how virus growth is regulated in the brain as well as investigations into scrapie, a neurodegenerative viral disease of sheep and goats. In scrapie, a fibrous protein accumulates in plaques and tangles of nerves in the brain, creating lesions similar to the protein-laden plaques and tangles seen in the brains of Alzheimer patients.

Clue to How Modified Protein Might Evolve in Alzheimer's Disease

As noted in the NIA section of this report, the brain lesions that characterize Alzheimer's disease are made up of a modified form of amyloid protein. How this protein becomes modified has long intrigued Alzheimer's disease researchers because it may be important for understanding how the disease develops.

NIAID grantee Dr. Timothy Wong and colleagues at the University of Washington in Seattle study a rare brain disorder, subacute sclerosing panencephalitis (SSPE), linked to the measles virus. Their work may provide clues to how modified proteins could evolve in the central nervous system.

In studying strains of measles virus isolated from brains of these patients, they have found that part of the genetic material of the measles virus is highly susceptible to specific mutations when grown in brain cells as compared with cells from other parts of the body. Once the changes are induced, they are passed on to new virus particles, which then spread slowly to other cells, perpetuating the modification. Brain cells infected with the modified virus tend to accumulate components of the modified virus, or proteins, rather than release fully formed viruses.

Specific mutations in the genetic material coding for one protein of the measles virus appear to produce the chronic, nonproductive measles virus infection of the brain that characterizes SSPE. If similar, nonrandom changes can occur to cellular materials, this could explain how modified cellular proteins could be produced that might accumulate in the host brain. This poses an intriguing question, whether modified proteins involved in degenerative central nervous system diseases, such as the amyloid protein in Alzheimer's disease, might be derived by this mechanism.

Laboratory System Developed To Help Understand Scrapie

Many studies indicate that a modified form of a normal brain protein, prion protein (PrP), is also associated with scrapie. Last year at NIAID's Rocky Mountain Laboratories in Hamilton, Montana, intramural scientists Drs. Bruce Chesebro, Byron Caughey, and Richard Race developed an artificial laboratory system in which to study PrP and the scrapie agent. The system comprises mouse brain tumor cell clones containing a high percentage of scrapie-infected cells.

Now able to carry out experiments more efficiently, the investigators recently used the laboratory system to determine how PrP is normally made and whether scrapie infection alters this process in any way. They found no evidence that scrapie infection modifies PrP biosynthesis in these cells.

Some scientists believe that modified PrP is a necessary component of the infectious scrapie agent, but these experiments did not verify this hypothesis. The modified form of PrP may instead arise as a byproduct of the disease process in a way that scientists cannot duplicate in the laboratory. The intramural scientists have now begun carefully analyzing the process by which PrP is made to determine what else might influence the modification of PrP to the scrapie protein.

Division of Research Resources

DRR supports and conducts research into Alzheimer's disease at research facilities across the United States. The DRR Biomedical Research Support (BRS) Program provides a pool of flexible funds to institutions heavily engaged in Public Health Service-funded research aimed at meeting particular research-related needs not usually covered by other grants. In addition, the awards may complement or supplement regular Public Health Service research grants. Also supported by BRS is the Shared Instrumentation Grant Program, which provides sophisticated research equipment to be shared among NIH-supported investigators. This year, for example, the work of Dr. Dennis Selkoe highlighted in the NIA section of this report utilized equipment provided by the BRS Program.

Other DRR-supported studies are looking at computed tomography (CT) as a means of identifying Alzheimer patients. According to DRR grantee Dr. Godfrey Pearlson at The Johns Hopkins University General Clinical Research Center (GCRC), CT scans indicate significant decrease in the amount of brain tissue over the course of just one year.

GCRC's provide the research infrastructure for multidisciplinary studies on both children and adults. Specifically, they provide patient research facilities, computerized data management and analysis, as well as support for research nurses, dieticians, biostatisticians, and specialized laboratories for the translation of basic and clinical research into medical practice.

Dr. Pearlson and other GCRC grantees examined 24 patients with early probable Alzheimer's disease and 20 age-matched healthy subjects. The patients were scanned at yearly intervals; the normal subjects were rescanned after 4 years. Regional volumes of cerebrospinal fluid (CSF)—the fluid that is secreted by specialized cells into the brain ventricles—were calculated. The grantees reasoned that the greater the volume of CSF, the larger the ventricles. If no conditions other than Alzheimer's disease are acting on the subjects, ventricles can expand only with the atrophy of brain tissue. Therefore, expanding volumes of CSF indicate increasing atrophy of brain tissue.

Dr. Pearlson found that CSF volumes were significantly larger after just 1 year in patients with Alzheimer's disease. So significant was the atrophy, in fact, that these patients, as a group, showed a percent increase in CSF volumes after 1 year that was greater than the percent increase seen after 4 years in the healthy group.

According to Dr. Pearlson, future studies are planned to determine if this technique is effective in rapidly identifying early cases of Alzheimer's disease.

NATIONAL CENTER FOR NURSING RESEARCH

NCNR-supported research on Alzheimer's disease focuses on developing and testing nursing techniques to improve home care as well as institutional care of Alzheimer patients. Studies also are aimed at developing better ways to educate and assist family caregivers.

Scientists Look for Successful Behavior Management Methods to Facilitate Home Care for Alzheimer Patients

Caring for Alzheimer patients can be difficult because patients are often confused and anxious and display inappropriate behavior, such as wandering, ignoring personal hygiene or being combative. Family members who care for these patients at home often report high stress, depression, poor health, and low life satisfaction.

Providing family members with information about successful home care methods can help them cope better with a routine that can be complicated and exhausting. NCNR grantee Dr. Mary Stewart-Dedmon of the University of Iowa College of Nursing in Iowa City, is interviewing family members who provide home care for Alzheimer patients. She is collecting information from 40 families about the most frequent memory and behavior problems they observe in patients, how the families manage these behaviors, and the usefulness of various behavior management techniques. The investigators plan to incorporate information about successful care methods in an Alzheimer's education model for health teams to use in helping families manage the needs and demands of people with Alzheimer's disease.

Researchers Evaluate Special Long-Term Care Unit for Alzheimer Patients

The progressive mental and functional impairments of Alzheimer patients pose many difficult problems for nursing care and management in long-term care facilities. Although long-term care units especially designed and equipped to treat patients with Alzheimer's disease do exist, there have been no systematic studies of their effectiveness.

With grant support from NCNR and NIA, Dr. Meridean L. Maas of the University of Iowa College of Nursing is assessing the effects of a special unit for the care of Alzheimer patients on patient functioning, family attitudes toward care, and staff morale, as well as on costs of care. The unit, located at the Iowa Veterans Home and administered by nurses, is designed to be environmentally safe, to have built-in cues to improve patient orientation and help avoid confusion, and to facilitate ease of care for health care workers.

Dr. Maas and her colleagues are comparing the efficacy of the special unit to that of traditional units that include Alzheimer patients with other residents. The investigators are comparing rates of decline in patients' mental functional abilities, degrees of agitation, use of medication, safety and exent of participation in social and recreational activities. They also are measuring family perceptions of patient care. In addition, the researchers are looking at the level of knowledge, amount of stress, degree of job satisfaction and rate of absenteeism among staff members.

Determining the usefulness of a special Alzheimer unit can help long-term care administrators, clinical staff and families of patients with this disease plan the most effective and least costly means of care.

3. Outlook

In 1989, the Department of Health and Human Services took a major step in support of Alzheimer's disease research with the publication of the report of the Advisory Panel on Alzheimer's Disease. The report called for increased funding in the areas of biomedical research, as well as research related to services for Alzheimer patients and financing programs to pay for them.

In addition, the NIA announced the establishment of three new Alzheimer's Disease Research Centers. This brings the number of such centers to 15 in a nationwide program designed to enhance research and care by establishing a network for collaborative efforts.

Also in 1989, the NIA and the Administration on Aging hosted a series of conferences focusing on issues faced by caregivers of Alzheimer patients. The 14 conferences, held in 9 different States, provided training and information about current practices in caregiving support for families of AD patients.

In the area of international research, the World Health Organization Special program for Research on Aging, based at the NIH campus to draw upon NIA resources and scientific expertise, moved forward in its plans for a comparative population study on age-associated dementias. This year, WHO announced that the project would be coordinated by the Studio Multicentrico Italiano Sulla Demenza in Florence, Italy, with Canada, Chile, Malta, Nigeria, and Spain participating in the study.

New research initiatives for the coming year include increased efforts to direct attention toward developing and testing behavioral, social, and environmental interventions for reducing the burdens of care, and evaluating the utility of special Alzheimer units and day care and long-term care settings.

As we begin 1990, which has been designated by Congress as the "Decade of the Brain," it is incumbent upon the research institutes of NIH to aim for a better understanding of the basic nature and causes of Alzheimer's disease and to find a way to diagnose, treat, and care for the 4 million people who suffer from it.

B. UNDERSTANDING AGING

Because poor health is not an inevitable consequence of old age, researchers are striving to separate normal developmental processes from disease and in the process studying the different ways certain diseases and conditions behave in older people.

Multiple Chronic Conditions Create Special Problems for Older People

As they age, people suffer from an increasing number of chronic conditions which can interfere with their ability to care for themselves. NIA intramural scientists Dr. Jack Guralnik, Dr. Andrea LaCroix, and Donald Everett in collaboration with Dr. Mary Grace Kovar at the National Center for Health Statistics (NCHS) analyzed data from interviews with more than 13,000 community-dwelling people 60 years of age and older. Their analyses of this nationally representative database show that for both women and men in three age groups, there was a clear association between number of chronic conditions and prevalence of disability.

People who care for older persons have long felt that multiple chronic conditions (or comorbidity) play an important role in an individual's overall health and ability to function. Prior to this study little research had been done to assess the prevalence of comorbidity among older people or to determine how chronic conditions affect a person's ability to perform specific activities necessary for independent living.

The NIA scientists studied responses to a survey which asked participants if they had any of nine chronic conditions prevalent among older people. They found that for woman age 60-90; 70-79; and 80-plus, the prevalence of have having two or more chronic conditions was 45 percent, 61 percent, and 71 percent, respectively. Prevalence rates for men in these same age groups were 35 percent, 47 percent, and 53 percent, respectively.

The researchers then looked at the effect these conditions had on the participant's ability to perform tasks such as bathing, dressing, eating, and getting in and out of bed. Dr. Guralnik and his colleagues found that as the number of chronic conditions increased the ability to accomplish these activities decreased. For example, 80 percent of women 80 years of age and over with five or more chronic conditions, who were not institutionalized, had difficulty or needed help with activities of daily living.

The correlation of multiple chronic conditions with need for assistance supports the impression that as more people reach older ages there will be an increased need for support services, medical services, and long term care. Consequently, research to improve the treatment or prevention of common disabling conditions could play an important role in reducing the need for medical and long-term care services for older persons.

Investigators Examine Active Life Expectancy

The U.S. Bureau of the Census estimates that by the year 2000 there will be 4.9 million people in this country who will be at least 85 years of age, a number which will increase to as many as 25.6 million in the year 2060. This projection is based on present population figures as well as on conservative assumptions about declining mortality rates for very old people. However, a growing body of scientists feel that this prediction could be vastly understated and that the number of people in this age group may actually become more than 200 percent higher than the Census Bureau's highest projections.

One such scientist is NIA grantee Dr. Kenneth G. Manton at Duke University in Durham, NC. Dr. Manton developed a computer model that simulates the effects of longevity of certain behavioral changes. For example, a man at age 30 could conceivably add 15 years to his life by eliminating risks such as smoking and high blood pressure. Therefore, Dr. Manton concludes that many more people could live to join the oldest old age group (those 85 years of age and older) than estimated in conventional projections.

Given the rapidly growing number of very old people in the United States, NIA scientists are investigating the quality of those lives. Will people be active and autonomous, or dependent and in need of care? Dr. Manton used the special assumptions built into his computer model to forecast the number of years very old people can reasonably expect to live without disabling conditions (active life expectancy). His analysis shows that, though life expectancy for men at age 85 is 5.15 years, only 2.63 of those years will be active. For women in this age group active life expectancy is 2.3 of their remaining 6.44 years. Dr. Manton projects that older women will spend more of their remaining days receiving institutionalized care than will men—1.88 years for women as opposed to 0.9 years for men.

This study also assessed the influence of chronic conditions on active life expectancy. Dr. Manton estimated that the elimination of dementia, for example, would increase active life expectancy among this age group by 11.4 percent for men and by 26.1 percent for women. He demonstrated that smoking cessation and control of high blood pressure could reduce an individual's future disability.

Dr. Manton observes that ignoring the likelihood of a much larger population of oldest-old is unwise. He suggests that possibly the only practical response is to maximize the health and functioning of the oldest-old by motivating changes in unhealthy habits.

In another analysis of independent versus dependent aging, NIA grantees Drs. Andrei Rogers and Richard Rogers at the University of Colorado at Boulder and their colleagues linked life expectancy of the oldest old with level of independence.

Four activities of daily living were used to classify an individual's ability to function independently: The ability to eat, bathe and dress oneself, and the ability to move from bed to chair unassisted. The researchers used Katz and coworkers' data from Waves One and Two of the Massachusetts Health Care Panel Study to estimate active life expectancy. Wave One consisted of interviews with over 1,600 noninstitutionalized people age 65 or older. Wave Two consisted of interviews with 1,500 people, some of whom were institutionalized (approximately 89 percent of them from the original Wave One group).

The investigators found a dramatic correlation between age and active life expectancy. For example, at 65 people could expect about 14.7 years of active life expectancy, at 80 people could expect less than half that or 5.6 years, and those people who were 85 could expect about 3.8 years of active life expectancy. Stated another way, the percentage of remaining years that could be lived independently dropped from about 90 percent for age 65 to 67 percent for those 85 years of age. People at any age who were independent could expect to live a majority of their remaining years independently.

The study also looked at active life expectancy for 65-year-old people who were dependent on others at the initiation of the study. The researchers concluded that even these individuals could expect to live 72 percent of their remaining 15.5 years independently. This conclusion was based on the probability of some individuals recovering from whatever condition caused their initial dependency. However, as the population ages, the estimated percentage of years spent independent of others does decrease.

These studies document the increasingly large number of people who can live to celebrate an active 85th birthday. This information can help health care professionals and policymakers plan for the challenges of providing quality care for people in their last years life and for developing opportunities for active older people.

Scientists Explore Mechanism for Resetting the Human Biological Clock

Insomnia and other problems getting a good night's sleep are common complaints among older people. Now, scientists supported by an NIA grant have found that carefully timed exposure to bright lights might prove a quick and effective treatment for certain sleep disorders.

Drs. Charles Czeisler, Richard Kronauer, and their colleagues at Brigham and Women's Hospital and Harvard University report that the body's internal clock is more sensitive to light than previously thought and can be "set" by scheduled exposure to light over a relatively short period of time.

Located in the brain's hypothalamus, this internal clock, or circadian pacemaker, controls when we sleep and when we wake, as well as a variety of other bodily activities that influence the way we think, feel, and function. Each day, the pacemaker—which runs on a cycle of about 25 hours—is reset to fit the 24-hour cycle of the calendar day. Dr. Czeisler and his colleagues have found that light may be the single most important factor in resetting the clock and that the timing of light exposure determines the extent and direction of the change.

As part of their research, the investigators conducted a total of 45 trials in 14 healthy young men. For an average 8-day trial, each participant lived in a laboratory environment devoid of all external time cues. For the first 2 days of the trial, the participants were kept awake while the investigators performed tests of body temperature, kidney function, alertness, and performance to determine the normal setting of their pacemakers. They then experienced 3 days of alternating light (16 hours) and darkness (8 hours). For 5 hours during each light cycle the volunteers sat facing a bank of specially designed fluorescent lamps with an intensity comparable to sunlight just after dawn.

As a result, the investigators found that the human circadian pacemaker can be reset to any desired phase by scheduled exposure to light for 2 to 3 days. More importantly, they found that the same exposure at different times can have significantly different effects. For example, exposure at one time in the cycle resets the clock to an earlier hour (i.e., an eastward time shift), while exposure at a different time resets the clock to a later hour (i.e., a westward time shift). Exposure at certain times causes very little effect. As part of his work on this project, Dr. Kronauer has developed a mathematical model to predict the body's response to any light exposure.

It has been known for some time that the internal clocks of animals and lower organisms are set by daily cycles of light and darkness. Scientists have long felt that in humans, social contacts and other environmental cues play a more significant role than light-dark cycles.

In 1986, Dr. Czeisler and his colleagues reported the first evidence that daily exposure to sunlight might be the key to resetting the biological clock. As part of an experiment designed to adjust slight abnormalities in circadian function, the investigators found a dramatic light-induced shift in the biological clock of a 66-year-old woman who was having difficulties with her sleep.

The recent findings indicate that a schedule of alternating light and darkness can be designed so that a person can be alert whenever she/he needs to be. This research has broad implications for people suffering from jet-lag (some of whom require more than a week to adjust to a new schedule), for those who do rotating-shift work, and for those who suffer from insomnia.

The research also has implications for older people. According to Dr. Czeisler and his colleagues, the circadian pacemaker gradually speeds up as a person ages. Over time this could lead to early morning awakenings and other sleep complaints reported by some older people. The NIA-supported scientists have already begun to apply their findings to treat some common sleep-related complaints of older patients and are encouraged by their preliminary results.

Heat Shock Response Decreases in Older Animals

NIA intramural researchers Drs. Joseph Fargnoli, Nikki Holbrook, and their colleagues at the Gerontology Research Center (GRC) in Baltimore, MD report that the heat shock response, a selective expression of specific genes in response to heat or other types of physiologic stress, is altered in older animals. This finding could eventually help explain why older people are more susceptible to environmental stresses such as cold and hot temperatures.

The researchers studied the in vitro response of young and old rodents by comparing their expression of the HSP 70 gene family. HSP 70 is induced when animals are subjected to heat stress. The heat shock response is a universal response found in all organisms ranging from plants to animals. It involves the selective expression of a unique set of genes that protect cells against a variety of toxic and stressful conditions.

Dr. Fargnoli and his colleagues took lung cells from both young and old rodents, grew the cells in a culture, and then applied elevated temperature. Results showed that the young animals produced a higher number of cultures giving a good HSP 70 protein response than did the old rodents.

These results suggest a defect in the ability of cells from old animals to mount an adequate heat stress response, when exposed to high temperatures. Further investigations may help determine whether a defect in heat shock gene expressions plays a role in an individual's physiological response to heat and environmental stress.

CHANGES IN AGING CELLS

As they age, cells lose their ability to reproduce. In addition, a variety of structural and metabolic changes occur in aging cells. Researchers supported by NIA are studying age-related changes in the duplication of DNA necessary for cell reproduction (DNA replication) and the "turning on" of genes (gene expression) to learn what causes cells to age and eventually die and to identify interventions to retard the human aging process.

Immortalized Cells Offer Clues to Cellular Aging

When grown in tissue culture, many types of normal cells, such as fibroblasts, divide only a certain number of times and then stop. In order to understand aging more fully, scientists must discover what actually halts DNA replication in cells that age and die, cells which are also referred to by scientists as mortal cells. By comparing mortal cells with immortal cells, researchers hope to learn what controls cellular aging. Immortal cells are cells which have been genetically altered so they proliferate without stopping; that is, they do not age.

NIA grantee Dr. Olivia M. Pereira-Smith of the Baylor College of Medicine in Houston, TX, has been studying what happens when mortal and immortal cells are fused with each other. She found that hybrids formed by fusing immortal cells with aging cells have limited division potential. Thus, these hybrids behave more like mortal cells than immortal ones. One theory to explain this behavior is that aging results from a program which includes the expression of a gene whose product inhibits DNA synthesis. Immortal cells may not age because they lose their ability to respond to this gene; thus, they escape the genetic program for aging. It seems likely that this is what happens in certain cancers. Further research involving immortalized cells should provide additional information about how programmed aging is controlled and whether this process can be reversed.

Gene Expression May Control Aging Cells' Biological Clock

Understanding how DNA replication is halted in aging cells is only part of the story. Scientists also must explain their observation that normal cells appear to possess a biological memory, or clock, which determines their average lifespan. Some researchers believe that this clock may be triggered by an event that occurs within the cell. NIA grantee Dr. Eugenia Wang of the Lady Davis Institute for Medical Research and McGill University in Montreal, Canada, has identified one such possible event. She has found that proliferating cells produce a protein known as cyclin, but they lack the protein statin. In contrast, aging cells contain statin but not cyclin. The structure of statin suggests that it may interfere with protein synthesis.

Dr. Wang observed that these protein changes also occur during cell differentiation, the series of biochemical and structural changes that cells undergo in order to form a specialized tissue. These proteins appear to mark the transition from a proliferating to a nonproliferating, or quiescent, state. Statin is a marker for quiescence in a number of different types of organisms and a possible "marker of aging."

DIABETES AND AGING

Noninsulin-dependent diabetes is more common in older people than in any other age group. Thus, NIA supports research on this illness as it pertains to aging processes. Two recent NIA findings are based on studies of rodents fed low calorie diets which retard aging and diseases.

Evidence Supports the Glycation Hypothesis of Aging

NIA grantee Dr. Edward J. Masoro and colleagues at the University of Texas Health Science Center in San Antonio have been testing the glycation hypothesis of aging, which states that glucose (sugar) may be a mediator of aging processes through its alteration of protein and DNA structure and functions.

Glycation is believed to be significant in the development of complications relating to diabetes because glucose can alter proteins and nucleic acids, leading to cross-linking in tissues such as collagen (connective tissues), blood vessels, eye lens, blood cells, and peripheral nerves. Cross-linking is a process that increases in both animals and humans as a function of age. Thus, scientists believe cross-linking—and increased glucose levels—may be responsible for some physical changes that occur in older people who have diabetes.

Dr. Masoro's group found that blood glucose levels in rats fed low calorie diets were significantly lower than in rats whose diet was unrestricted. Also, in the rats on the low calorie diet there was less linking of glucose to the hemoglobin molecule. Thus, the reduced glucose levels observed in rats fed low calorie diets and the fact that these rats have an extended lifespan with a slowing of their aging processes supports the glycation hypothesis of aging. Glycation reactions are also believed to have a significant role in the development of diabetic complications.

The Effect of a Low Calorie Diet on the Pancreas

Another NIA grantee conducting studies on a caloric restriction in rodents is Dr. Roy L. Walford at the University of California at Los Angeles. One of Dr. Walford's recent studies on mice showed that the restriction of calories results in lower glucose levels and an altered structure of the pancreas.

Two groups of mice were studied following weaning at 4 weeks. One group was fed a normal diet while the other group was fed a diet restricted in calories. Both groups received equal amounts of minerals, proteins, fats, and vitamins—a diet that was sufficient to satisfy nutritional requirements. Only carbohydrates fed to the two groups were adjusted to provide the difference in calories.

Eleven months later the investigators examined the pancreases of the mice. In the mice fed the low calorie diet the volume of the islets of Langerhans (cells found in the pancreas which secrete insulin) was significantly smaller. These results indicate that consuming a low calorie diet reduces the organism's need for insulin, which eases the burden on the process of metabolizing foods.

AGING AND DIGESTIVE DISEASES

The NIA supports a number of studies on digestive diseases and disorders—one of the primary causes of hospital admissions for older people. The Institute has developed a research focus on nutrition that includes a study on the way aging affects the intestine's ability to absorb nutrients.

Age-Related Changes in Absorption of Nutrients

According to a study using animal models of aging, conducted by Dr. Peter R. Holt at Columbia University and St. Luke's-Roosevelt Hospital Center, in New York City, certain age-related changes take place in the intestine that may make it difficult to adequately absorb various nutrients. The investigators studied two groups of rats, looking at the small intestines of old rats (27 to 28 months old) and young rats (4 to 5 months old) under normal dietary conditions and after starvation and refeeding. They found sharply reduced levels of enzyme activity in the intestine of older rats, both under normal conditions and especially after starvation, when compared to the younger rats. Intestinal enzymes play a vital role in ensuring nutrients are absorbed efficiently. In addition, the small intestine and colon of older rats show cellular changes with the stress of starvation and refeeding that resemble well-established, pre-malignant colonic conditions.

Changes in intestinal absorption may increase the risk for some diseases or illnesses. Weight loss and malnutrition often occur after an illness or surgery and nutrients must be restored to return the body to normal health. The intestine of the older patient may not respond adequately to ensure such nutrient restoration.

Osteoporosis, one of the most common disorders associated with aging, may be exacerbated by a decline in calcium absorption, associated with nutrient malabsorption. Pernicious anemia, a condition marked by a deficiency of vitamin B12 can also result. Hypochlorhydria, another syndrome the rates of which appear to increase with age, is also characterized by a decreased absorption of vitamin B12.

The researchers recommend increased research on digestive diseases in older people and cite the need to develop a noninvasive test to measure intestinal absorption and malabsorption of a variety of substances.

C. STRATEGIES FOR PROMOTING HEALTH AND EFFECTIVE FUNCTIONING

One of the primary goals of aging research is to find new knowledge that can be applied to enrich the lives of older people and the futures of those who will someday be old. Researchers hope to prolong the healthy, productive middle years, and to have more people enjoy an energetic and independent old age.

Older Patients Often Experience Discriminatory Health Care Practices

It seems obvious that by eliminating specific risks a person can prevent, or modify, certain illnesses and prolong health. In fact, it is increasingly acknowledged that lifestyle changes at any age can improve a person's quality of life. How well has that knowledge filtered down to health care providers and the public? Do older patients receive the same guidance about their health as do younger patients?

In a study conducted by NIA grantees Dr. Rosalie F. Young at Wayne State University in Detroit, MI, and Dr. Eva Kahana at Case Western Reserve University in Cleveland, OH, the overwhelming conclusing is that older patients often are denied access to information and recommendations that would lessen their risk of future illness. Further, this problem occurs because physicians generally are not trained to communicate effectively with older people and may lack the knowledge that preventive measures are beneficial for even the oldest people.

Dr. Young and her colleagues administered a questionnaire to 246 cardiac patients following their discharge from several Detroit hospitals. All respondents spoke English and had no evidence of severe cognitive impairment. Questions concerned personal helath, use of health care facilities, and general well-being. Additionally, respondents answered questions about their knowledge of heart disease and ways to reduce the risk of future cardiac problems. In analyzing the results, the investigators divided participants into an older group (age 60 and above) and younger group (age 40–59). They found major differences in the information and instructions given to the two groups by their physicians.

The study found that people in the older age group reported receiving less information and instruction than people in the younger age group. With respect to physician-generated information, 38 percent of the older group received no information about heart attacks compared to 21 percent of the younger group. The investigators found that older people were less informed than younger people about weight, diet, exercise, reduction or cessation of smoking, reduction of stress, and enrollment in rehabilitation programs. For example, nearly half of the younger group were told to stop smoking, while only about one-quarter of the older group were given the same guidance.

Cardiac rehabilitation programs are extremely beneficial to recuperating heart patients at any age, regardless of the extent of the patient's disease or his/her general health. Yet, only 28 percent of the older age group were advised by their physician to participate in such a program, compared to 52 percent of the younger group.

Heart disease is the number one killer of older people. Reliable information about preventive measures can reduce the risk of future cardiac problems. Unfortunately, some physicians may unwittingly place their older patient's lives in jeopardy, or contribute to a diminished quality of life, by withholding valuable information.

Another example of how older people are generally less apt to receive state-of-the-art health care than younger people, is found in the work by NIA grantee Dr. Jeanie Kayser-Jones at the University of California, San Francisco who related the professional and personal environments in nursing homes to the quality of care the patients received.

In an in-depth interview of 100 physicians between the ages of 29 and 79, Dr. Kayser-Jones found that 53 percent do not believe that older patients should receive maximum evaluation and treatment for acute illnesses. As a result, Dr. Kayser-

Jones found that patients over 80 years of age often receive less agressive care than their younger counterparts.

Dr. Kayser-Jones studied how physicians make treatment decisions for their older nursing home patients with acute illnesses. She found that several factors act as deterrents to aggressive treatment. Examples include a fear by many physicians of malpractice suits should treatment fail, a distrust of reports from nursing home staffs, and an uncertainty as to Medicare reimbursement.

Interpretation of data from three nursing home facilities in California over a 3-year period found the nursing home environment lackluster, with few professional caregivers, a noticeable absence of physicians, and high turnover of professional and nonprofessional staffs. Dr. Kayser-Jones also found that 48 percent of older nursing home residents were transferred to hospitals not for clinical reasons, but because nursing homes were poorly staffed with inadequately trained nurses, nurse-physician communication was ineffective, and family members wanted a better level of care than the nursing home provided.

Investigators encountered other problems in the nursing home setting. Nurses often diagnosed a patient's complaint to the physician by phone, a system which relies heavily on the verbal and assessment skills of the person filing the report. Many nursing homes were ill-equipped to handle severe illness and, therefore, staff routinely urged physicians to transfer patients to acute care hospitals. Physicians report reluctance to perform tests that may require followup treatment.

Dr. Kayser-Jones compares the care given sickly newborns with the care given older people. This care is swift and aggressive. On the other hand, nursing home patients who suffer serious illness are often viewed as burdens from the time of admission. As a result, nursing home care tends to be "defensive" rather than therapeutic, with the primary goal being to protect the institution and health care professionals from negative results.

The authors point out that while many nursing homes are of high quality, problems in others must be addressed. Dr. Kayser-Jones suggests encouraging rapid and skillful health assessment, monitoring subtle patient changes, coordinating nursing home staff and shifts, following through on diagnostic tests, evaluating results after treatment, and formulating comprehensive treatment plans.

In a third example of age discrimination, NIA grantees Drs. Gaylene Becker and Sharon Kaufman at the University of California, San Francisco examined data from various studies related to the availability of rehabilitation therapy for older patients and initiated their own research on stroke rehabilitation. They conclude that though rehabilitation is beneficial for many older persons, it is not routinely offered. The decision to introduce rehabilitation therapy after a stroke depends upon the patient's recovery potential, yet chronological age is generally assumed—without scientific base—to affect recovery.

Historically, rehabilitation has been thought of in terms of returning to a vocation and therefore not relevant for people no longer in the work force. Additionally, the widespread association of age with frailty and illness influences many health care professionals to mistakenly decide that loss of function is normal in advanced age. The result is that the American health care system encourages the younger patient to regain function, but not the older patient. However, research shows that geriatric rehabilitation can be beneficial for older people who are physically disabled. In fact, it may be especially beneficial for patients over 85.

Of all illnesses occurring later in life, stroke is the most physically debilitating. Stroke patients comprise the largest single group of older patients in physical rehabilitation settings. Investigators found that rehabilitation facilities, however, are very selective when admitting patients over age 80. Only those who demonstrate the greatest potential for progress are selected so that therapists can be assured of at least some success. As a result, persons chosen for rehabilitation are most often under 80 years of age, thus perpetuating faulty perceptions regarding age.

Drs. Kaufman and Becker found that older stroke patients who have multiple illnesses or cognitive impairment generally are not aware of the purpose of their therapy. A stroke patient's attention may focus on physical losses rather than on ways to overcome them. In response, health care professionals may develop a sense of futility about therapy for older persons. The investigators speculate that the potential conflict between patient goals and professional goals may significantly reduce access to rehabilitation.

These studies demonstrate that negative values about old age continue to infiltrate health care choices, even among health care professionals. However, age should never be the determining factor in selecting the best possible care for all patients.

Falls in Older People Have Many Causes

Falling is a major cause of disability among older people. Each year, falls occur in approximately one-third of all persons age 65 and older who live at home. About 50 percent of those who fall do so repeatedly. A common accident among older Americans, falls cause more than 200,000 hip fractures annually. They are also the leading cause of accidental death in men and women over 85.

Research supported by the NIA focuses on determining the extent to which physical frailty and risk of injury can be reduced in older people. To learn which older individuals were at greatest risk of falling, NIA grantee Dr. Mary Tinetti at the Yale University School of Medicine in New Haven, CT, studied more than 300 people 75 years of age and older who were living in the community.

At the beginning of Dr. Tinetti's study, the participants underwent a thorough evaluation, including standardized measures of their physical and mental health, strength, reflexes, balance, and gait. Participants recorded their falls in a diary and were called every other month to discuss the number of falls and the circumstances surrounding their occurrence.

During the year the study was conducted, 32 percent of the participants fell at least once. Of those who fell, 24 percent were seriously injured, including 6 percent who suffered fractures. Twenty-six percent of those who fell reported that they had curtailed shopping, housecleaning, or other activities because of their fear of falling.

Although some falls have a single, obvious cause, Dr. Tinetti found that most are due to a combination of risk factors. She observed that use of sedatives, changes in mental status, lower extremity disability, foot problems, and balance and gait abnormalities were significant risks for falling. Other risk factors included changes in vision, hearing, muscle strength, and reflexes. In addition, environmental hazards contributed to the risk of falling.

Dr. Tinetti also discovered that the tendency to fall increased with the actual number of risk factors present, from 8 percent for individuals with no risks to 78 percent for those with 4 or more risk factors. Her research suggests that it may be possible to prevent falls by modifying even a few of these risk factors.

Dr. Tinetti and others have found that most older people fall during their usual daily activities, such as walking or changing position (for example, rising from a sitting to a standing position). A minority of falls—about 5 percent—occur during clearly hazardous activities, such as climbing on chairs or ladders or participating in sports. About 10 percent of falls occur on stairs, with descent more hazardous than ascent.

Even those falls that do not result in injury may have serious psychological consequences. An older person who has fallen once tends to reduce his or her activity because of a fear of falling again. In addition, in an effort to prevent falls, family members and health care providers may discourage physical activity. This decrease in physical activity is particularly hazardous because inactivity itself leads to an increased risk of falling. Falls and fraility are mentioned as a contributing factor in about 40 percent of nursing home admissions.

Now that researchers have identified the factors that increase the risk of falling, falls can no longer be considered random, unpredictable events. The first step in preventing falls is identifying the disabilities and other risk factors that predispose older people to fall. Studies are underway to identify interventions that will minimize the risk of falling without compromising an older person's independence.

Risk of Heart Disease May Be Greater for Hostile Individuals

Individuals who are hostile, especially if they are arrogant, argumentative, surly, and rude, appear to increase their chance of having coronary heart disease (CHD). That's the finding of researchers at the University of Maryland at Baltimore County (UMBC) and the GRC.

It has long been suspected, but not fully confirmed, that individuals displaying type A personality characteristics such as hostility, competitiveness, impatience, and a heightened sense of time urgency, are more likely to develop cardiac disease. One research project, the Western Collaborative Group Study, showed that type A behavior doubled the CHD risk. However, another study, the Multiple Risk Factor Intervention Trials (MRFIT), showed little or no association between type A traits and death from heart disease or nonfatal heart attacks.

Dr. Theodore Dembroski at the UMBC, NIA intramural scientist Dr. Paul T. Costa, and their colleagues looked at one personality trait commonly found in type A people—"potential for hostility." They examined the relationship between hostile behavior and an increased risk for coronary death and nonfatal heart attacks among nearly 600 participants in the MRFIT. The participants ranged in age from 35 to 75 years old.

The investigators measured three interrelated components of hostility, as well as overall type A behavior, as possible predictors of sudden death and nonfatal heart attack. After adjusting for known coronary risk factors such as high blood cholesterol, smoking, and hypertension, they found that "potential for hostility" was positively linked to an increased risk for heart disease, especially in younger participants. In and of itself, however, type A behavior was not found to be an independent risk factor for CHD.

These findings suggest that hostility may be unhealthy enough to jeopardize one's health. Future health risk profiles may be devised with this behavior trait in mind.

Depression's Debilitating Effects

Depression can be defined in two ways. The first is a medical orientation that refers to a prolonged psychiatric disorder. The second is a lay term which encompasses a general feeling of sadness.

A new study finds that both types of depression can be as debilitating as a serious heart condition. In fact, it is more disabling than most chronic physical conditions. People with traditional symptoms of depression report more days in bed and perceive more physical pain than patients experiencing back, lung, or gastrointestinal problems, angina, or diabetes. Of these conditions, only serious heart conditions can cause more days in bed and only arthritis can be more painful.

These findings come from the Medical Outcomes Study (MOS), supported in part by NIA, and conducted by the Rand Corporation of Santa Monica, CA. The MOS is the largest and most comprehensive patient-oriented observational study to compare medical, psychological, and social outcomes of patients treated at various health care facilities. Investigators included Dr. John Ware at the New England Medical Center in Boston, MA, Dr. Kenneth Wells at the University of California at Los Angeles' Neuropsychiatric Institute and Hospital and Dr. Alvin Tarlov at the Henry J. Kaiser Family Foundation, Menlo Park, CA.

In the MOS, investigators surveyed 22,462 patients and 523 physicians at HMOs, large group practices, and individual practices in Boston, Chicago, and Los Angeles. Participants ranged in age from 18 to 103 years old. The study focused, not on illness per se, but on how the patient actually functions and feels. A cross-section of the total sample participated in tests evaluating physical and social functioning, mental health, health perceptions, and bodily pain.

A key finding from this study is that depression is as disabling as chronic medical conditions in performing routine, daily activities such as walking, dressing, and visiting friends. Moreover, depression in combination with a chronic medical condition greatly compounds the dysfunction that may be associated with the medical problem alone. Performance of everyday activities is particularly difficult for patients suffering both depression and a chronic medical condition. For example, patients suffering from depression and coronary artery disease were twice as likely to have problems with social relationships as patients with only one of these conditions.

In addition, the MOS uncovered significant findings about the effects of physical illnesses. The study found that most chronic conditions make it difficult for a person to conduct everyday activities and maintain a positive attitude. Health perceptions were most negative for patients with congestive heart failure or gastrointestinal disorders and most positive for those with hypertension or back problems. Daily functioning was easiest for hypertensives and most difficult for those with heart diseases.

In summary, this study demonstrates that depression can cause disability as severe as other major chronic conditions. Further, a patient's physical symptoms may mask the depression. It is essential for physicians to be aware of the influence depression can have on the course of an illness, to make accurate diagnoses, and offer proper care for people who complain even when the complaints are nonspecific. According to the investigators, the method they have used to evaluate illness might prove valuable in assessing the overall progress of ongoing treatment because it considers the patient's concerns and monitors for more than one condition.

Further analysis of data will include age-specific differences in the sample population.

Researchers Investigate Depression and Increased Risk of Cancer

In addition to examining the influence depression has on the course of a disease, scientists are also looking at the influence depression has on the cause of a disease. For some time, researchers have debated the relationship between emotions and disease. Emotional distress has been implicated as a risk factor for a variety of medical conditions, including heart disease, allergies, and cancer. One theory suggests that depression lowers immune function, making persons who are depressed more likely to develop disease. Several research projects are investigating the connection between disease and depression—one such study focuses on cancer.

Intramural researchers at the GRC have found that people who are depressed do not have an increased risk of developing cancer, as some experts previously believed. Drs. Alan Zonderman, Paul T. Costa, Jr., and Robert R. McCrae, examined data from a followup study of the National Health and Nutrition Examination Survey I (NHANES I) to learn whether those people who were depressed at the time of the initial survey were more likely to develop cancer than those who were not depressed.

Between 1971 and 1975, NHANES I collected medical and psychological data from more than 6,900 men and women across the United States who were between 25 and 75 years of age. As part of the study, all participants took a psychological test which measured the symptoms of chronic depression. To confirm this diagnosis, about one-third of the participants took a second psychological test that also measured depression.

In 1981, a followup study gathered data on the NHANES I participants who could be traced. To determine what had happened to participants since the NHANES I study, researchers collected medical information from hospital records and from death certificates for those people who had died since the initial survey. They were able to account for 93 percent of the original participants.

Dr. Zonderman and his colleagues analyzed this followup data and found no significant differences in cancer deaths associated with depression. Adjustments for the effects of common risk factors for cancer—such as sex, age, smoking history, and family history of cancer—did not change the results of the study.

Beginning in 1986, the NIA researchers retraced participants who were 55 years or older at the time of the NHANES I study to examine the health changes that occurred in this older age group. In this second followup study, information was collected on 96 percent of the 3,980 participants who were 55 years or older at the time of NHANES I and who participated in the first followup study. In this study, as in the first followup, there were no significant associations between death from cancer and symptoms of depression for either test of depression. Study results were unchanged when analyzed separately for men and women. The results supported the earlier followup study.

This finding confirms the results of two separate studies but contrasts with results from an earlier, smaller investigation into the question of the cause and effect relationship between depression and cancer. The NIA findings are strengthened because the researchers used two widely accepted tests for depression and because they studied a nationally representative group of people. Moreover, the results were not biased by participant selection because no one was eliminated from the study for health reasons. This study does not support the theory that depressive symptoms are a risk factor for cancer.

Smoking and Body Fat Studied

GRC researchers have discovered yet another reason to quit smoking. Results of a large-scale study show that cigarette smoking produces a redistribution of body fat which is associated with coronary heart disease. Smokers who quit often gain weight around the hips, a relatively benign region in terms of health effects. This link between smoking and body fat proved true for the younger and older participants.

Hundreds of worldwide studies provide convincing evidence of the harmful effects of cigarette smoking which takes a major toll on the heart, lungs, blood vessels, and other organ systems. According to the U.S. Surgeon General's Office, male cigarette smokers are at 22 times the risk for lung cancer and more than one of every six deaths in the Nation can be traced to cigarettes.

Although about 1.3 million people "kick the habit" each year, some 30 percent of the adult population continue to smoke. Approximately 1 million people start smoking each year.

One reason some smokers refuse to quit is weight control. Evidence shows that many smokers do gain weight after quitting. It comes as little surprise then, that smokers as a group, are relatively lean.

This latest research, conducted by GRC scientists, Dr. Hiroshi Shimokata, Denis C. Muller, and NIA's clinical director, Dr. Reubin Andres, involved an in-depth analysis of the smoking histories and body measurements on 1,122 men, aged 19 to 102 years, all volunteers in the Institute's Baltimore Longitudinal Study of Aging

(BLSA). Participants visited the GRC regularly to undergo a battery of physiological and behavioral tests.

The GRC investigators used waist and hip circumferences and the waist-hip ratio (WHR) as parameters to assess body fat. All measurements were taken in a standing position. To adjust for height, the body mass index (BMI) was computed and the weight divided by the square of the height. An adjustment was also allowed for age.

The findings of the study have unexpected and important clinical implications for the smoking public. While total weight and BMI proved lower among smokers when compared to nonsmokers, the circumference of the waist and the WHR in smokers was greater in the cigarette smokers than the nonsmokers. This variance increased proportionately with the actual number of cigarettes smoked daily.

Further, the scientists report that despite a modest increase in weight among smokers who quit, the increase in WHR was less than would have been anticipated. Those participants who started smoking during the course of the study experienced a decline in total body weight (on the average) but their WHR increased. Thus, cigarette smoking influenced the placement of fat in the body.

Previous studies have demonstrated that when body fat accumulates primarily around the waist, individuals greatly increase their risk for developing cardiovascular disease. In addition, experts have noted a marked propensity for developing diabetes when the waist-hip ratio is high. This is an especially important finding for older people because the incidence of diabetes and heart disease increases with age.

The investigators conclude that people who continue to smoke in order to control their body weight are making a doubly bad bargain with their health.

Exercise Prevents Disabling Bone Loss in Older Women

Each year osteoporosis causes 1.5 million fractures of the wrist, spine, hip, and other parts of the skeleton in people over age 45. This bone-thinning condition, which affects more women than men, develops silently over a period of many years. Gradually and without discomfort, bone loss occurs, leading to a weakened structure less able to support normal daily activities. A minor fall or blow that would not injure most people can easily break one or more bones in someone with severe osteoporosis. Fractures directly related to osteoporosis cost Americans an estimated $7 to $10 billion annually.

NIA grantees have found that exercise deters the bone loss leading to osteoporosis. Dr. Everett L. Smith and colleagues at the University of Wisconsin in Madison studied the benefit of a 4-year exercise program in previously inactive women between 35 and 65 years of age (with an average age of 50). Although investigators have compared bone loss in active and inactive women at a specific age, few have followed the effects of exercise in the same women over a period of many years. Researchers believe that early prevention of bone loss could greatly reduce the number of fractures later in life.

Before entering the study, each participant had a thorough physical examination, including measurements of bone mass and a treadmill test to assess her level of fitness. The 62 women in the control group did not participate in any organized exercise program, but continued their normal daily activities. The 80 women in the exercise group participated in a 45-minute exercise program three times a week.

Each exercise session included a warmup period, 25 minutes of aerobic exercise (dancing, walking, or jogging), and a cooldown period. During the first year of the study, exercises were designed primarily to increase participants' aerobic capacity. During successive years, light wrist weights, push-ups, and various dance routines that strenghten the upper body were added.

Dr. Smith measured bone width and bone mass in both forearm bones and in the upper arm bones. Measurements were taken every 3 months during the first year and every 6 months for the next 3 years. He found that bone width and bone mass declined significantly in all three bones of both arms of the participants in the control group. The rate of decline was significantly less in the exercise group.

To determine if menopause influenced the response to exercise, Dr. Smith analyzed premenopausal and menopausal participants separately. As a woman passes through menopause, her body produces less estrogen. This hormone influences bone mass by slowing or halting bone loss. As the level of estrogen drops, bones become less dense. Dr. Smith found that premenopausal and postmenopausal women who exercised did not lose as much bone mass as did the women who did not exercise. The results of this study indicate that physical activity significantly reduces bone loss in middle-aged women.

In related research, NIA grantee Dr. Gail P. Dalsky and coworkers at the Washington University School of Medicine in St. Louis, MO examined the effects of exercise on the spine. Dr. Dalsky studied a short-term exercise training program (9 months), which was followed by 13 months without exercise, and a long-term exercise training program (22 months). Participants were healthy, inactive women between the ages of 55 and 70.

At the beginning of the study, the women had a thorough physical examination, measurement of bone mass, and a treadmill test. Participants were given 1,500 mg. of calcium daily since some researchers believe that a shortage of calcium after menopause is associated with the development of osteoporosis.

The 19 women in the exercise group did weight-bearing exercises (walking, jogging, and climbing stairs) for 50 to 60 minutes three times a week. Dr. Dalsky found that bone mass in the lower spine increased significantly after the short-term weight-bearing exercise program and that an increase in bone mass was maintained during the long-term training program. After training stopped, bone mass reverted to what it had been at the beginning of the study, even with calcium intake staying at the level used during the study. These results suggest that exercising led to the increase in bone mass.

Although previous animal studies confirm this finding, this is the first time researchers have shown in humans that gains in bone mass during an exercise training program are lost when exercising is stopped. Dr. Dalsky's study indicates that continuous weight-bearing exercise can increase bone mass in postmenopausal women.

Future studies will investigate more specifically the exact amount and best type of exercise necessary to prevent bone loss. Additional research is also needed to develop alternative exercise programs for people with joint and mobility problems that keep them from participating in aerobic exercises.

Physical Performance Measures Should Be Implemented in Aging Research and Clinical Practice

Evaluating a person's functional abilities has long been a cornerstone of geriatric research and practice. Generally, this evaluation is based on the patient's self-report of his or her abilities. However, NIA intramural scientists Drs. Jack Guralnik and J. David Curb, in collaboration with Drs. Laurence Branch at the Boston University School of Public Health and Steven Cummings at the University of California at San Francisco believe that now is the time to supplement this process with objective performance measures.

An objective performance measurement is one in which the individual performs a specific task and is evaluated in a uniform manner using predetermined criteria. Some tests measure an individual's ability to accomplish activities of daily living such as walking; others assess more difficult or vigorous activities requiring balance or strength. Most of the recently developed instruments involve timing or measuring specific actions rather than simply assessing the participants' ability to perform or not perform the entire task.

The NIA researchers believe objective measurements may compensate for many of the limitations found in self-reports. For example, objective measures may reduce the confusion between an individual's assessment of his or her ability and the assessment of a family member. They are easier to reproduce and not as easily influenced by a person's poor cognitive functioning or by culture, language, and education as other evaluation techniques.

There are some disadvantages associated with objective assessments, notably—such tests require time, specialized equipment, and trained personnel. In addition, while they can indicate a patient's functional ability, objective tests may not account for an individual's ability to adapt to the environment.

Dr. Guralnik and his colleagues believe the time is right for the field of gerontology to begin a focused research effort addressing this issue. They indicate that additional research is necessary to assure the development of reliable and valid performance tests. They also point to some important clinical applications. Physicians, for example, may be able to use these tests to track a patient's ability over time. Such comparisons may aid in developing early interventions to prevent the physical consequences that can occur in patients having one or more chronic conditions.

Urinary Incontinence in Nursing Home Residents

Nearly 1 million nursing home residents in this country (over half) suffer from loss of bladder control, or urinary incontinence. The U.S. Surgeon General estimates that the yearly cost of managing urinary incontinence in nursing homes exceeds $8 billion. Tragically, few nursing home residents who are incontinent have had any type of diagnostic evaluation or treatment.

Although researchers have identified a number of different types of incontinence, surprisingly little is known about which forms of urinary incontinence are most widespread among nursing home residents. NIA grantee Dr. Neil M. Resnick at Brigham and Women's Hospital in Boston, MA has identified a previously unrecognized form of incontinence that is particularly common among frail older people.

Prior to Dr. Resnick's study, researchers believed that incontinence in nursing home residents was due almost exclusively to involuntary bladder contractions which cause urine to leak before an individual can reach the toilet. This condition is called detrusor hyperreflexia (DH). In most cases, the amount of urine lost is moderate and the amount of urine remaining in the bladder after voiding is small.

Using a number of techniques to measure bladder function, Dr. Resnick has identified a condition called detrusor hyperactivity with impaired contractility (DHIC). This form of urinary incontinence is similar to DH in that the bladder contracts involuntarily. Unlike DH, a significant amount of urine remains in the bladder after voiding. The bladder contraction empties only one-fourth to one-half of the bladder volume. Thus, in addition to causing incontinence, this condition is associated with urinary retention, which can lead to serious infections.

Dr. Resnick identified DHIC in patients in a nursing home and two hospitals. The study included 32 patients—27 women and 5 men. The nursing home residents averaged 89 years of age. The average age of hospitalized patents was 79 years. Participants had been incontinent more than three times per week for more than 2 months. Half of the patients had severe mental or physical disabilities.

Dr. Resnick found no significant differences between nursing home residents and hospitalized patients with DHIC. He studied the characteristics of patients' incontinence, their other illnesses and any previous surgeries, and the medications they were taking. Participants underwent extensive urologic tests. They also had a thorough neurologic examination, as well as an assessment of their mental status and their ability to perform daily activities. Nursing assistants completed 48-hour records of voiding frequency and incontinence episodes for each patient.

Aside from the fact that DHIC is common among nursing home residents, it's diagnosis is important because this form of incontinence causes the bladder to retain urine. Urine retention can be especially harmful in patients taking medications that also cause the bladder to retain urine. In addition, DHIC may be easily misdiagnosed and mistreated. For example, this form of incontinence may closely mimic prostate obstruction in men and stress incontinence in women, resulting in unnecessary and potentially harmful surgery.

In a followup study of incontinence in nursing home residents, Dr. Resnick observed that the most common types were DH and DHIC. Approximately 61 percent of the 94 patients in this study had these forms of incontinence. The average age of patients was 89 years. Surprisingly, he found that the types of incontinence in patients with dementia, mobility problems, or both did not differ markedly from the types of urinary incontinence in individuals without these disabilities. Thus, correctable causes of incontinence are much more common than previously believed, even in nursing home patients who are demented.

Urinary incontinence in frail older persons cannot be dismissed as merely due to advanced age, dementia, immobility, or institutionalization, although these factors may play a part. In a large number of patients, the cause or causes of incontinence can be identified, and in many cases, the condition can be significantly improved or cured. Patients should not be excluded automatically from urologic examinations and treatment simply because of age, frailty, or the fact that they are in a nursing home. If the patient's overall health makes treatment feasible, the cause of incontinence should be carefully sought.

Pharmacology and Aging

People over age 65 comprise 12 percent of the Nation's population, but consume over 30 percent of the prescription drugs dispensed. Geriatric patients commonly suffer from multiple disorders for which they often take several medications whose side effects and interactions may diminish therapeutic efficacy and cause clinical problems.

It is important to consider the use of medications by older people in the context of the most recent research. Three key points include the need to: (1) Distinguish intrinsic aging factors from extrinsic factors—such as lifestyles, environmental influences, diseases, or the effects of medications already being taken; (2) recognize the immense variability among older people relative to use and dosage of medications; and (3) identify restoration of function as the principle goal of treatment.

In addition, we need to know more about how the side effects of medications may contribute to problems frequently seen in older people, including falls, incontinence, and confusion. It is also important to learn more about the long-term effects of chronically administered medications on the lives of older people who are taking them. The NIA and the National Heart, Lung, and Blood Institute currently support a clinical trial for treatment of systolic hypertension. In this trial, the drugs used are monitored for their possible effects on mood and cognitive or physical functioning, as well as on blood pressure itself. Another NIA study examines the risks and benefits of antimicrobial treatment for chronic urinary tract infections.

In August 1989, NIA issued a Request for Applications titled "Pharmacology in Geriatric Medicine" to stimulate a broad spectrum of research relevant to the use and effectiveness of medications in older people. This initiative encourages research on such topics as: New pharmacologic approaches for geriatric problems such as dizziness and urinary incontinence; effects of age-related physiologic changes or diseases on responses to medications; causes, prevalence, clinical consequences, and prevention of specific drug side effects and adverse reactions; the role of medications in causing, exacerbating, or ameliorating problems such as falls and gait disorders, confusion, and depression; drug-drug and drug-nutrient interactions; and determining efficacy and side effects in geriatric patients of newly introduced drugs.

Older Rural Populations

Problems of access to and affordability of medical and social services are of potential concern to people of all ages, but are particularly important issues for older people living in rural areas. In general, rural areas support a narrower range of services and have a higher proportion of poor and medically uninsured individuals than do urban areas. Rural residents typically live at some distance from physicians, hospitals, and other social services, and do not have access to public transportation. In addition, many rural communities face a continuing problem in recruiting and retaining health care professionals.

The NIA has supported a major epidemiological project on older rural populations in Iowa since 1981. A second epidemiological project, begun in North Carolina in 1984, studies black populations in both rural and urban settings. Other NIA research focuses on social support systems in rural areas and farm family intergenerational relations.

Both the House and Senate appropriations report language for FY 1989 encouraged an expanded program of research on the health and social needs of older rural residents. In addition, both the House and Senate requested NIA consider establishing a center for studies of older, rural populations. In February 1989, NIA convened a panel of experts to consider the feasibility of this center and the role of the NIA in health-related research concerning older, rural populations. As a result, NIA recommended a program calling for the establishment of multiple centers at several sites accessible to older rural populations and funding investigator-initiated research.

The NIA is currently considering expanding its research on the health and well-being of older rural residents—including the proposed center—although the degree to which expansion occurs will depend largely on the availability of funds. Topics of potential interest include: the epidemiology of pesticide exposure and neurologic diseases, sun exposure as a risk factor, geriatric and functional assessment of older rural residents, injury prevention and control, formal and informal health care systems, health behaviors, and the well-being and quality of life among older rural people.

ARTHRITIS

An age-related disease of unknown cause, osteoarthritis (OA) is characterized by slowly developing local joint pain, stiffness, limitation of motion, and possible deformity. It is the most common form of arthritis and affects most adults over age 60.

New Grading Scale Is Developed To Assess OA in the Hands

NIA intramural scientists Drs. Jordan D. Tobin and Douglas A Kallman of the GRC have developed a grading scale that is more accurate in diagnosing OA of the hand than assessment methods previously used. This new method is especially important because the scale used before (the Kellgren/Lawrence scale) was unable to assess many of the joints in the hands.

Participants in the study were male volunteers from the Baltimore Longitudinal Study on Aging (BLSA), GRC's ongoing study to assess the aging processes of healthy adults. Radiographic examinations of the hands of 177 participants were made over a period of 20 years and then analyzed using the Killgren/Lawrence scale and the newer grading scale. Drs. Tobin and Kallman found the newer scale had a higher degree of accuracy in the initial diagnosis, in determining the prevalence of specific joint abnormalities, and in characterizing the progression of the disease—all factors that will help physicians treat the growing number of older patients.

The Impact of Osteoarthritis and Rheumatoid Arthritis on Daily Activities

The debilitating impact of arthritis on an older person's ability to function is well documented. Little is known, however, about the impact of different types of arthritis on an individual's ability to perform his or her daily activities. NIA-supported researcher, Dr. Edward H. Yelin at the University of California at San Francisco has found that while OA negatively affected some of the activities evaluated in this study, rheumatoid arthritis (RA) had a negative impact on all activities. These included household chores, shopping and errands, social relationships, leisure pursuits, religious activities, public or volunteer work, and employment.

Dr. Yelin's 5-year longitudinal study involved 825 persons aged 50 and over who were diagnosed with OA and RA. The patients were randomly selected from the practices of Northern California rheumatologists and were compared with healthy individuals of the same age and sex who were living in the same community.

When patients were compared with people without arthritis, patients with RA experienced greater loss in all studied activities and patients with OA experienced greater loss in only some activities (i.e., performing household chores, shopping and errands, and leisure activities). Thus, the study confirms that OA and RA can limit an indivdual's ability to function in later years, but that RA takes an even greater toll than OA.

HYPERTENSION

The NIA supports a number of studies that examine hypertension, a condition existing in half of all people over 65.

Dr. William B. Applegate, an NHLBI grantee and a member of the NIA Advisory Council, recently analyzed the benefits and risks of the most common therapies for older people suffering from hypertension. Dr. Applegate, from the University of Tennessee Center for Health Sciences in Memphis, suggests that physicians take special care with older patients and watch for the side effects of the medications used to control blood pressure. At least 40 percent of hypertensive older people are now being treated with drugs which have the potential for affecting their quality of life, mood, and energy level.

One of the studies he discusses is the Systolic Hypertension in the Elderly Program (SHEP), jointly supported by NIA and NHLBI, which examines isolated systolic hypertension (ISH). The results of SHEP's double-blind intervention trial are expected in the next two years, and will provide definitive recommendations on ISH treatment, including benefits and side effects, in older people.

In people over age 65, ISH more than doubles the risk of stroke. In screening for the SHEP pilot study, the prevalence of ISH was about 10 percent of persons over 70 years old, and 20 percent of persons over 80 years old have this form of high blood pressure.

Among drug therapies, diuretics are the most effective type of drug used in lowering blood pressure in older people. However, Dr. Applegate indicates that a variety of other classes of antihypertensive medications are effective in older patients.

The most commonly reported side effects from hypertensive medications are: problems with balance and dizziness upon standing up; confusion and depression; delayed mental reaction time; potential alterations in blood flow to the brain or kidneys; urinary incontinence, and sexual dysfunction.

Older persons do not always experience side effects from the medications. A pilot study of SHEP suggested that ISH can be fairly easily treated with drugs in older people, with relatively low rates of adverse responses. In a separate study of older patients who were otherwise healthy, drug treatment revealed that harmful side effects were no more common in older than younger patients. But little data has been collected on the impact of such medications in frail older people who suffer from other serious illnesses.

In the pilot study for SHEP, 551 subjects with ISH were treated with a diuretic and an additional drug if needed, and compared with a placebo group. Seventy-five percent had their ISH controlled with the diuretic alone. There were no substantial differences between the control and treatment groups in terms of toxic reactions to the drugs.

Dr. Applegate also mentions types of therapy that do not involve drugs for older hypertensive people. These interventions include weight loss for overweight people, sodium restriction, cessation of alcohol, regular aerobic exercise, and relaxation therapy.

Treatment of hypertension in older people may become a matter of individual choice in weighing the advantages of a slightly extended lifespan against the disadvantages of side effects that can include diminished emotional or cognitive functions, mobility and balance, or sexual interest. Dr. Applegate warns that in some cases the risks of treatment may outweigh the benefits.

AIDS AND OLDER AMERICANS

Although most AIDs victims are in a younger age group, the disease affects a large number of middle-aged and older adults. In fact, 10 percent of all AIDS cases reported since the start of the epidemic have involved people aged 50 and over. By 1992 the number of middle-aged and older adults with AIDS is expected to reach 100,000; and for those aged 60 and over the number will be 10,000.

NIA Scientists Study Immune Functions in Older Persons With AIDS

Dr. William B. Adler of NIA's intramural program at the Gerontology Research Center in Baltimore, MD, is currently studying the course of the illness, the response to AZT (azidothymidine) therapy, and the changes in immune status in individuals with AIDS who are over age 60.

Older persons with AIDS survive a shorter length of time following infection with HIV than do younger persons. This shortened survival for older patients was originally believed to be related to how the infection occurred—that is, through contaminated blood transfusions rather than other modes of infection. However, this has not proven to be the case since all older patients demonstrate a shortened survival period regardless of the mode of infection.

Dr. Adler's study includes 123 individuals with AIDS (adults of all ages). In an attempt to understand why older individuals react differently to an HIV infection the study focuses not only on AIDS, but also on the functional decline of the immune system that occurs normally with advancing age. This decline results in older people becoming more susceptible to infections illnesses and a greater likelihood of death as a result of these infections. Thus, at a time in life when older people are already developing an immunodeficiency, the HIV furthe compromises immune function, causing the disease to progress more rapidly.

If much of the pathology seen in AIDS is due to the immune system's response to infected tissue, then younger patients would be expected to be sicker and have a shortened survival. However, this is not the case. Dr. Adler hopes that the examination of HIV infection on people of different ages may reveal information useful for the treatment and prevention of AIDS.

Publication of NIA Sourcebook on AIDS in Older Persons

A sourcebook, *AIDS in an Aging Society* [1], was recently compiled by the staff of NIA's Behavioral and Social Research program. The volume discusses issues and presents data concerning the AIDS epidemic and the common misconception that the epidemic represents no threat to people over ago 50. Acceptance of this belief has led people to assume prevention efforts are wasted on middle-aged and older people. It also disguises the problem of the rapidly growing need for health care facilities by AIDS patients of all ages. This need will intensify as people with AIDS have to compete with disabled older adults for long-term care resources which are already in short supply.

The chapters were written by researchers throughout the United States who are studying AIDS and aging processes. They address social and behavioral scientists involved in research, professionals in practice, and public policymakers who are concerned with the far-reaching implications of AIDS on people of every age.

AGING AND MINORITY POPULATIONS

NIA is especially interested in research to improve the health and longevity of minority populations. Specifically, NIA studies cultural influences, life expectancy, health status, environmental influences, family structure, social networks, and problems associated with life transitions as they relate to African American, Asian, Hispanic, and Native American minorities. Relatively little is known about how minorities age. NIA will continue to encourage an expanded effort in this area.

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[1] Riley MW, Ory MG, Zablotsky D, eds. *AIDS in an Aging Society: What We Need to Know.* New York: Springer Publishing Company, 1989.

Older African Americans Have Varied Support Networks

It has long been known that older people frequently turn to family members for aid in times of troule. Yet, disproportionately high rates of poverty, poor health, and single parent families place especially heavy burdens on African American families just to maintain everyday lives. With these demands and strains within Black families, to whom do older African Americans turn for help?

As one example of research focused on minority populations, NIA grantees Drs. Robert Joseph Taylor and Linda M. Chatters at the University of Michigan in Ann Arbor and Dr. Vickie M. Mays at the University of California at Los Angeles examined data from the 1980 Panel Study of Income Dynamics (a well-known, long-term study of family economics). This survey asked a representative sample of family members to whom they would turn for assistance during an extended time of trouble. Respondents ranged from 19-94 years of age; 20.7 percent were 56 or older. Dr. Taylor and his colleagues analyzed the 2,533 responses of African Americans. Results showed that Black Americans have developed a variety of networks for support that include and extend beyond the immediate family.

Many similarities in helper networks were found among all population groups. For African Americans, as well as for non-minority older people, the parent-child bond appears to be of primary importance. Being able to turn to adult children in an emergency is considered most important for all older people. Additionally, this study confirms that widows from all ethnic groups seem to have comparatively fewer sources of assistance and frequently rely on distant relatives or non-kin.

Racial differences in informal networks show African Americans less likely than Whites and Hispanics to mention in-laws as a source of help; they were however more likely to mention siblings and aunts or uncles. More than 20 percent of the African American participants cited nonfamily members as important sources of support. According to Dr. Taylor and colleagues, support from the church or neighbors may be especially important for rural Blacks whose adult children have migrated to cities.

As the population of older Americans grows—and the proportion who are minorities increase even more rapidly, any of the responsibilities for assisting older relatives will fall on the shoulders of family members. In African American communities, a clear understanding of how family and friends can function as a helping network is necessary to develop realistic policies. Advance planning can strengthen the success of these efforts and allow older people to maintain their independence for as long as possible.

D. TRAINING AND CAREER DEVELOPMENT IN GERIATRICS AND AGING RESEARCH

The health care needs of a growing population of older persons will result in an increased requirement for geriatricians and other health care providers with training in geriatrics. These growing needs will also require more individuals capable of conducting research in geriatrics and training future geriatricians. At present, the number of such individuals is limited.

The Institute of Medicine, in 1987, recommended creating centers of excellence to train academic leaders in geriatrics. In response, NIA created a program of awards which were recently redesignated as the Claude D. Pepper Geriatric Research and Training Centers in honor of the late Senator Pepper.

These centers are designed to enhance collaborative efforts in geriatric research and provide training and career development for academic geriatricians who will increase academic leadership in the field nationwide. The efforts of individuals trained at these centers will improve the quality of medical care available to our older population. One Center was established in FY 1989 at the University of Michigan. It is anticipated that at least one additional center will be awarded in FY 1990. Two complementary awards are the Geriatric Research Institutional Training (GRIT) award and the Geriatric Academic Program (GAP) award. These awards provide a continuum of support from the fellowship to the faculty level.

The NIA also supports traditional individual fellowship and institutional training grants found throughout NIH. In addition, NIA supports Special Emphasis Research Career Awards (SERCA) which provide opportunities for researchers trained in one scientific field to develop expertise in allied fields. NIA-supported SERCAs foster the careers of researchers with interests in three special areas: behavioral geriatrics, nutrition and metabolism, and otolaryngology.

NIA is an active participant in NIH's recent initiative to provide increased research experience for underrepresented minorities. The program is targeted to various levels of students and scientists including high school students, college graduate and undergraduate students, junior faculty members.

The NIA intramural program is a major setting for postdoctoral training of promising young investigators (both M.D.'s and Ph.D.'s) for research careers in aging-related biomedical and behavioral sciences. Other NIA research and training efforts include a summer institute designed to recruit new postdoctoral students into the field of aging research.

III. OTHER RESEARCH ON AGING SUPPORTED AND CONDUCTED BY THE NATIONAL INSTITUTES OF HEALTH

A. NATIONAL CANCER INSTITUTE

Cancer incidence increases with increasing age. Although aging is not the cause of cancer, the two processes are related. More than 80 percent of all cancers occur in persons age 50 and older, and 58 percent occur in people age 65 and over.

This year the National Cancer Institute (NCI) contributed to advances in health care for older people through a number of research projects, educational programs, and intervention efforts.

Early Detection of Breast Cancer

In 1989, about 142,000 new cases of breast cancer will be diagnosed in the United States and 43,000 women will die from this disease. *Cancer Statistics Review 1973-1986*, published by NCI in May 1989 showed that during the 14-year period of the report, the incidence rate for breast cancer in women age 50 and older was nearly 10 times higher than in younger women. During the same period, the mortality rate from breast cancer in women age 50 and older increased 5 percent compared to a 9 percent decrease for women younger than 50.

Early diagnosis improves survival and mammography is the most effective way to detect breast cancer in its earliest stages. However, the 1987 National Health Interview Survey revealed that only 17 percent of U.S. women age 40 and older had a screening mammogram during the previous year. Therefore, NCI has engaged in many activities to encourage women age 40 and older to get periodic mammograms, have an annual breast exam by a physician, and perform monthly breast self-examinations.

This year 11 health care and medical research organizations, including NCI, issued breast cancer screening guidelines stating that asymptomatic women between ages 40 and 50 should have an annual clinical breast examination with mammographic screening every 1 to 2 years. Beginning at age 50, both the clinical examination and mammography should be performed yearly. Scientists estimate that breast cancer deaths would decline by at least 30 percent if women followed these guidelines.

Breast Cancer Treatment

In the area of breast cancer treatment, three NCI-funded clinical trials reported that many women with node-negative (no spread to underarm lymph nodes) breast cancer may benefit from adjuvant treatments (chemotherapy or hormonal therapy after primary treatment). Each year about half of all patients diagnosed with breast cancer have node-negative disease.

Two of the trials were conducted by the NCI-funded National Surgical Adjuvant Breast and Bowel Project, chaired by Dr. Bernard Fisher at the University of Pittsburgh in Pennsylvania. Twenty-five institutions collaborated in one of the trials and 52 institutions collaborated in the other.

The third NIC-funded trial was a collaborative effort of the Eastern Cooperative Oncology Group, the Southwest Oncology Group, and the Cancer and Leukemia Group B. The study was chaired by Dr. Edward Mansour at Case Western Reserve University in Cleveland, OH.

The results provided the impetus for a "Clinical Alert" issued to physicians when the data first became available and prior to their publication in a journal. A follow-up assessment of the alert revealed that 75 percent of responding physicians had changed their treatment practice as a result of information provided.

Using data on more than 125,000 women diagnosed with breast cancer from 1973 to 1984, intramural researchers Dr. Rosemary Yancik and Lyn Ries, and Dr. Jerome Yates at Rosewell Park Memorial Institute in Buffalo, NY, studied the influence of advancing age on breast cancer. They found that 43 percent of newly diagnosed cases occur in women age 65 or older, that older women are more likely to present initially with more advanced cancers, that older women tend to have less extensive surgery than younger women, and that older women live as long as younger women after treatment for localized and regional stage disease. However, for distant disease, older women do much worse.

Replacement Hormone Therapy

NIC visiting scientist Dr. Leif Bergkvist at the University Hospital in Uppsala, Sweden, intramural researchers Drs. Robert Hoover and Catherine Schairer and their colleagues conducted a study of 23,244 Swedish women who used replacement hormones (both estrogen and estrogen-progestin combinations) to ease symptoms of menopause. They reported that the risk of breast cancer was increased by 70 percent among those who had used estrogens for more than 9 years. Few women in this study used conjugated estrogens (the form most commonly used in the United States), so a risk estimate for this type of therapy could not be determined by this study.

Prostate Cancer Treatments

Found primarily in men age 50 and older, prostate cancer becomes increasingly common with each decade of life. In 1989, an estimated 103,000 new cases of prostate cancer will be diagnosed in the United States and 28,500 men will die from the disease. It is the third leading cause of cancer deaths in men.

Based on the results of an NCI-funded clinical trial, the Food and Drug Administration this year approved the use of a combination drug therapy (flutamide and leuprolide) for advanced prostate cancer. The study showed that individuals with advanced prostate cancer who were treated with the drug combination survived nearly 25 percent longer than men treated with leuprolide alone.

Collaborating on this study were intramural researcher Dr. Andrew Dorr; Dr. David Crawford and Marilyn Davis at the University of Colorado in Denver; Dr. Mario Eisenberger at the University of Maryland Cancer Center in Baltimore; Dr. David McLeod at the Walter Reed Army Medical Center in Washington, DC; Dr. Joseph Spaulding at the University of California in San Francisco; Dr. Ralph Benson at the Mayo Medical School in Rochester, MN; and Dr. Brent Blumenstein and Phyllis Goodman at the Fred Hutchinson Cancer Research Center in Seattle, WA.

In 1989 intramural researcher Dr. Charles Myers and his colleagues at the NIH Clinical Center in Bethesda, MD, reported preliminary findings showing that the anticancer drug suramin produced tumor regression in 50 percent of a group of advanced prostate cancer patients who had failed standard therapy.

NCI-funded phase II clinical trials of suramin at NCI and three other institutions are attempting to confirm the 50-percent reduction. Current hormonal therapy yields a similar response rate (40 percent), however, patients often relapse within 18 months and die following 6 to 10 months.

Clinical Trials

NCI has a major initiative to double the number of patients enrolled in clinical trials by 1992, with special emphasis placed on increasing involvement of older people. Information and education programs are aimed at encouraging older patients to consider clinical trials as a treatment option.

Smoking

In 1989, NCI provided technical assistance to the American Association of Retired Persons (AARP) and Philadelphia's Fox Chase Cancer Center for the development and testing of a targeted smoking cessation program for people age 50 and older. In the newly initiated American Stop-Smoking Intervention Study, a joint project with the American Cancer Society, NCI hopes to reach at least 15 million smokers, including the 50-plus age group, through 20 community-based tobacco control coalitions nationwide.

Joint Projects

Two joint projects on cancer education for older people began in 1989. NCI is working with AARP to develop and education resource kit for AARP's Health Advocacy Services Volunteers throughout the Nation. To identify the most appropriate materials for the kit, NCI and AARP conducted a direct-mail needs assessment of volunteers. Production of the jointly funded kit is planned for early 1990.

Representatives from NCI are working in collaboration with NIA on a joint initiative to help older people learn ways to reduce their cancer risk. One goal is to make older people more aware of the importance of receiving state-of-the-art cancer treatment; another is to conduct a joint needs assessment survey of older people to determine what educational and intervention programs will be most effective.

B. NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

The National Heart, Lung, and Blood Institute (NHLBI) supports and conducts research as it relates to normal function and diseases of the heart, blood vessels, lungs, and blood.

Protein Oxidation Correlated With Aging Process

Dr. Earl Stadtman, a NHLBI intramural scientist, has shown that oxidation of proteins (i.e., increasing the positive charges on the atoms) at specific sites and by specific reaction marks those proteins for subsequent degradation and disposal by protein-decomposing enzymes, or proteases, in cells. In Dr. Stadtman's studies, the amount of oxidized proteins in the livers of rats increased with age over a period of 2 to 26 months and this accumulation of oxidized proteins was paralleled by a decrease in the activity of specific enzymes in the liver. The level of neutral proteases decreased in the livers with age, suggesting that a progressive loss of ability to degrade the oxidized proteins is the reason for their accumulation. Oxidized proteins also are present in much higher concentration in the tissues of older people, possibly because of a similar mechanism.

In related studies Dr. Stadtman found that accelerated oxidation of proteins occurs in rates exposed to higher-then-mormal levels of oxygen, in gerbil brains damaged by interruption of blood flow and subsequent reintroduction of blood, and in damaged rat brains when low soldum levels are corrected. A single injection of bacterial endotoxin, into rats provided a fivefold increase in the life span of animals exposed to 100 percent oxygen. The correlation of protein oxidation with age and the basic understanding of the mechanisms by which this occurs may further understanding of the aging process.

Aging Affects Diaphragm Contractility in Hamsters

The potential importance of respiratory, chiefly inspiratory, muscle fatigue has been recognized only for the last decade. If inspiratory muscles fail, so do ventilation and tissue respiration. There are theoretical reasons to postulate inspiratory muscle failure in chronic obstructive pulmonary disease (COPD), and their is fairly good evidence that respiratory muscle fatigue is important in certain neuromuscular diseases such as polio, amyotrophic lateral sclerosis, muscular dystrophies, and myopathies.

To learn how aging affects diaphragm function, Dr. Steven G. Kelsen, a grantee at Temple University in Philadelphia, PA, studied diaphragm contractility in young adult, middle-aged, and old hamsters. Using in vitro tests on muscle strips. Dr. Kelsen showed that the maximum active tension that could be developed by the muscles from older animals was significantly less than that developed by young adult and middle aged animals. In addition, other changes in the measures of muscle function were adversely affected by aging, such as the speed at which the muscle was capable of shortening. Dr. Kelsen councluded that aging adversely affects the tension-generating ability of the diaphragm, its velocity of shortening, and its resistance to fatigue.

For healthy older humans, these results are probably of little importance, since the respiratory system normally has considerable reserve. However, for those with respiratory problems such as COPD, these findings show that aging in and of itself is likely to increase the risk of developing respiratory failure due to respiratory muscle fatique.

Aging Shown To Affect Smooth Muscle Cell Proliferation in Artery Wall

Dr. Babette B. Weksler, a grantee at Cornell University Medical College in New York City has been studying the influence of aging on the development of arteriosclerosis in experimental animals. According to one hypothesis, the early stages of arteriosclerosis are characterized by the proliferation of smooth muscle cells (SMC) in the artery wall at sites of injury to the cells that line the vessel. Such proliferation is stimulated by growth factors (for example, platelet-derived growth factor) and slowed by growth inhibitors (for example, heparin). Dr. Weksler has shown that, following experimental injury to the vessel lining, SMC from the aortas of aged animals proliferate at a greater rate than those from young animals, and the proliferation of old vascular SMC is less dependent on serum or added growth factors than that of young vascular SMC. Aging thus favors the development of arteriosclerosis by releasing SMC from the constraints on proliferation found in the cells of young arteries.

C. NATIONAL INSTITUTE OF DENTAL RESEARCH

Major new efforts to assess the oral health of adults and older Americans are being supported by the National Institute of Dental Research (NIDR). Underpinning these efforts are data from the NIDR *National Survey of Oral Health in U.S.: Employed Adults and Seniors: 1985-1986* showing that toothlessness, root caries, gingival bleeding, and severe periodontal destruction are significant problems among Americans 65 and older.

NIDR Develops Research and Action Program

Based on these findings, NIDR has developed a new initiative to improve the oral health of adult Americans. The goal of this program is to eliminate tooth loss and prevent further deterioration of oral health in individuals who have compromised dentition. The effort is being coordinated with other Federal agencies and professional and private groups.

New Understanding is Gained on Patterns of Tooth Loss

Intramural scientist Dr. L. Jackson Brown and Dr. Lawrence H. Meskin at the University of Colorado Health Sciences Center, in Denver have found that all sociodemographic groups of older people experience extensive tooth loss but that people age 65–69 with higher incomes have less severe tooth loss than do older people with low incomes. These differences diminish with increasing age and by age 80 most people have no teeth.

In a related intramural study, Dr. Brown, Ms. Janet A. Brunelle, and Dr. Galen B. Warren collaborated with Dr. Meskin to present a new approach for describing tooth loss patterns. This typology will help target oral health promotional efforts.

Preliminary Data Show No Age Difference in Sensory Function

Dr. Marc W. Heft, an NIDR grantee at the University of Florida, in Gainesville reports preliminary data that show for the first time that the perception of temperature in adults age 65 and older without neurological disease does not differ from that in adults age 20 to 30. This research is being coordinated with three other studies at Gainesville—the site of NIDR's first Research Center on Oral Health in Aging.

Decreased Food Enjoyment Is Not a Normal Part of Aging

Based on a study of men and women between ages 25 and 92, intramural scientists Drs. James M. Weiffenback, Carloyn A. Tylenda, and Bruce J. Baum have shown that oral sensory function (in terms of food enjoyment) remains intact well into old age.

Impaired Salivary Function Is Associated with Alzheimer's Disease

NIDR and NIA intramural scientists Drs. Jonathan A. Ship, Charles DeCarli, Robert P. Friedland, and Bruce J. Baum report that saliva flow rates from the submandibular salivary gland were significantly lower among patients with early Alzheimer's disease compared to age-matched healthy individuals.

D. NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) conducts and supports research into the causes, treatment, and prevention of many of the most serious chronic and disabling diseases that affect public health. Among the diseases under research that disproportionately affect older people are noninsulin-dependent diabetes and osteoporosis.

Relationship Between Noninsulin-Dependent Diabetes Mellitus and Diet Studied

The ideal diet for people with noninsulin-dependent diabetes mellitus (NIDDM), which affects about 10 million Americans who are middle-aged or older, has been a subject of controversy. Because people with NIDDM are at increased risk for coronary heart disease, most doctors recomment a low-fat, high-carbohydrate diet to help control the level of low-density lipoprotein (LDL) in the blood. LDL, the "bad" cholesterol, is associated with an increased risk of heart disease.

NIDDK grantee Dr. Roger H. Unger and his colleagues at the University of Texas Southwestern Medical Center at Dallas and the Veterans Administration Medical Center in Dallas compared the effects of both a high-carbohydrate diet and a diet high in monounsaturated fatty acids. Ten patients (mean age of 56) with NIDDM receiving insulin therapy participated in the study.

The high-carbohydrate diet provided 60 percent of calories in the form of carbohydrates and 25 percent of calories in fat. The high monounsaturated fat diet had 50 percent fat and 35 percent carbohydrates. Both diets provided comparable levels of protein, cholesterol, and dietary fiber. The researchers found that the high monounsaturated fat diet lowered blood sugar levels and reduced most patients' daily insulin requirements. This diet also raised levels of high-density lipoproteins (HDL), the "good cholesterol," by 13 percent. There was no significant difference in total cholesterol and LDL cholesterol in patients on the two diets. Preliminary results suggest that eating a diet high in monounsaturated fats, as a partial replacement for carbohydrates, may improve blood sugar control without raising blood cholesterol. Dr. Unger and his colleagues conducted this research at a General Clinical Research Center supported by NIH's Division of Research Resources.

Decreased Vitamin D Related to Osteoporosis

NIDDK-supported investigators at Columbia University in New York City have demonstrated that decreased production of the active form of vitamin D is related to both osteoporosis and aging. The researchers have established that this active form of vitamin D normally is produced by the kidney and is regulated by parathyroid hormone and by phospate levels. Detailed information on this study can be found in the NIDDK contribution to a separate report on Arthritis, Rheumatic Diseases, and Related Disorders.

E. NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE

As people age they become increasingly susceptible to diseases of the nervous system. As the focal point for research on these diseases, the National Institute of Neurological Disorders and Stroke (NINDS) supports and conducts investigations of conditions affecting the aging population: Parkinson's disease, Alzheimer's disease, and stroke. (NINDS research on the latter two disorders is described in separate reports.)

Nearly half a million people in the United States, most over age 60 have Parkinson's disease, which is characterized by uncontrollable tremors, rigidity, and difficulties with movement and speech. These symptoms result from the loss of dopamine, a chemical messenger, from the brain's substantia nigra. They can be controlled by medication such as levodopa. Many patients however react unpredictably to such drugs. An estimated one-third to one-half of patients with Parkinson's disease also develop dementia.

NINDS-supported scientists are studying the biological progression of Parkinson's disease and experimenting with treatment methods other than drugs.

Deciphering Disease Mechanisms

A number of scientists are studing animals with Parkinsonian symptoms induced by the neurotoxin MPTP. The toxicity of this chemical and its analogs varies, depending on the species of animal tested and the exact chemical structure of the neurotoxin.

One team of NINDS-supported investigators, led by Dr. Roger Duvoisin at the University of Medicine and Dentistry of New Jersey in Piscataway is trying to pinpoint the conditions that encourage or inhibit toxic effects. If, as the team theorizes, an MPTP-like molecule plays a role in Parkinson's disease, then such studies might reveal how to detoxify the agent. Results from in vitro experiments consistently indicate that MPTP inhibits respirations of mitochondria—intracellular energy-producing furnaces—within nerve terminals in the dopamine production system.

Other scientists are using MPTP-treated monkeys to study how movement difficulties develop. By analyzing firing patterns of brain nerve cells in pigtail macaques as they move their wrists, NINDS grantee Dr. Ray Watts at Emory University in Atlanta, GA, has found the first neuronal evidence of abnormal preparation for movement. Initial results suggest that abnormal timing and directional activity of movement-preparatory cells in the brain leads to disorganized nerve firing patterns.

This may be an important link in the explanation of why lesions of the brain's basal ganglia lead to Parkinsonian symptoms.

Exploring Implant Treatment

MPTP models are also used to test treatments for Parkinson's disease, such as implants of dopamine-producing adrenal or fetal tissue into the brain. More than 100 human patients in a number of countries have already had such implants. The results have been contradictory, but varying degrees of recovery have been reported. Scientists are focusing on animal studies because it is not clear how—or whether—implants stimulate dopamine production. The grafts themselves may produce the chemical or they may encourage repair of the host's damaged dopamine system. It could also be that surgery itself stimulates repair.

An NIND-supported team at three institutions, working with an MPTP model in African green monkeys, has found that transplants of fetal tissue from the monkey brain's substantia nigra lead not only to dopamine production but also, apparently, to functional improvement. Scientists led by Dr. Donald Redmond at the Yale University School of Medicine in New Haven, CT found that the grafts significantly reversed even major behavioral abnormalities such as cognitive and motor decrements.

While many scientists believe that fetal tissue is the more promising trigger for dopamine production, some continue to work with adrenal implants. Because adrenal implants are taken from the participant's own body, they will not be immunologically rejected.

An NINDS-supported team, led by Dr. Don Gash at the University of Rochester Medical Center in New York is investigating whether adrenal grafts produce growth factors that encourage regeneration. While the grafts themselves survive poorly in the basal ganglia, the team found that the procedure does encourage vigorous recovery of the remaining dopamine-producing cells in the Cebus monkeys.

Drug Trial Yields Promising Results

This year a major NINDS-supported study revealed that treatment with the drug deprenyl delays the progression of symptoms in patients with early Parkinson's disease and postpones the need for L-dopa therapy. Although scientists are unsure how deprenyl works, they believe that this is the first treatment to actually slow the progress of a neurodegenerative disorder. By contrast, therapies like L-dopa alleviate the symptoms of such diseases without slowing the destruction that causes them.

In the deprenyl study, the largest clinical trial ever conducted for Parkinson's disease, scientists studing 800 patients at 28 centers found that during the first year of treatment, 44 percent of 401 patients receiving an inactive placebo declined to the point of needing L-dopa to maintain their normal activities, while only 24 percent of 399 patients given deprenyl required L-dopa. These results are so promising that scientists are continuing to investigate if other positive effects are seen with longer use of deprenyl. Thus far the study has shown that patients taking deprenyl are able to continue working fulltime longer than those given a placebo.

The study, under the leadership of grantee Dr. Ira Shoulson at the University of Rochester in New York, continutes to investigate the value of alpha-tocopherol (vitamin E) therapy in conjunction iwth deprenyl, as well as the effectiveness of deprenyl when combined with L-dopa.

Although there is speculation that deprenyl may be effective in other brain disorders such as Alzheimer's disease, there is no evidence or even indication at the present time that this is true.

Developing Technology

Investigators led by NINDS grantee Dr. Stanley Fahn at the Neurologic Institute of Columbia University in New York City are developing a simple, patient-oriented device for meauring tremors and other physical effects of Parkinson's disease. Initial results indicate that this system can successfully quantify symptoms. The device, which relies on miniaturized circuitry, should enable patients to produce an ongoing record of any changes in their condition without entering the hospital.

F. NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

Older people may be more susceptible to organisms that cause bacterial and viral infections than those in other age groups. Therefore, improved ways of preventing and treating these illnesses can be lifesaving. The National Institute of Allergy and

Infectious Diseases (NIAID) conducts and supports research on the biology of many of these organisms, as well as research aimed at preventing these infections.

Bacterial Pneumonia May Be Acquired in Hospitals

Recently a new stain of chlamydial bacteria, called TWAR, has been identified as one cause of respiratory tract infections associated with pneumonia. The TWAR organisum has been found more commonly in patients with pneumonia than in patients with other respiratory illesses such as sinusitis.

NIAID grantee Dr. J. Thomas Grayson and his colleagues at the University of Washington in Seattle conducted a retrospective study of the relationship between TWAR and pneumonia. The researchers looked at patients who entered the hospital with pneumonia and who developed pneumonia during their hospital stay. Most of the patients ranged in age from 55 to 60 years old and most had a chronic illness such as heart disease.

Dr. Grayson and his colleagues looked for an antibody to TWAR in samples of the patient's blood. (An antibody is a protein in the blood and protects the body from foreign organisms). They found that 10 percent of the 198 hospitalized patients had TWAR antibody levels indicating of recent infection. When compared with 20 control cases of pneumonia, there was no difference in symptoms or clinical signs of pneumonia. Nine of the 20 TWAR patients acquired pneumonia in the hospital.

The study demonstrates that TWAR-associated pneumonia can be acquired in the hospital as well as in the community. It also confirms studies showing that community-acquired TWAR-associated pneumonia in patients with chronic illnesses can result in clinical complications and even death. Further studies will determine precisely how TWAR is transmitted in the hospital—whether it is spread only by person-to-person contact, as is common in the community, or whether a reactivated TWAR infection may be responsible. This study is another step toward determining what role TWAR plays in causing pneumonia.

Effects of Drugs on Herpes Zoster Studied

Chickenpox, which is caused by a type of herpes virus called varicella-zoster, is contracted by most people during childhood. After the infection has subsided, the virus becomes dormant, remaining in the body but causing no ill effects. However, varicella-zoster virus sometimes reactivates later in life, causing herpes zoster, also known as shingles. It has been estimated that about 50 percent of people who live to age 80 will have an attack of shingles.

Symptoms of herpes zoster can range from mild itching to intense pain. Herpes zoster can result in blindness if it affects the eyes. In people with a weakened immune system, shingles may result in disseminated disease in which the virus spreads to organs throughout the body. It can also be life threatening.

NIAID contractor Dr. Richard J. Whitely at the University of Alabama in Birmingham directs the NIAID Collaborative Antiviral Study Group, which is investigating the effects of acyclovir (an antiviral drug) and prednisone (an anti-inffammatory drug) on herpes zoster. They are studying these drugs alone and in combination. Acyclovir has already been shown to have beneficial effects against herpes virus infections. The study group is also comparing intravenous vidarabine (another antiviral drug) with acyclovir for treating disseminated herpes zoster in immunocompromised patients. In addition, they are investigating whether oral acyclovir will prevent the spread of shingles in immunocompromised patients who have localized infection. It is hoped that these studies will soon provide a way to relieve the debilitating symptoms of herpes zoster.

G. NATIONAL EYE INSTITUTE

Americans 65 and older account for one-third of all visits for medical eye care. The National Eye Institute (NEI) supports research aimed at reducing the burden of aging-related eye disease.

Scientists Study Treatment for Glaucoma

Open-angle glaucoma, the most common form of glaucoma in this country, is a leading cause of blindness in Americans 65 and older. Although its cause remains unknown, glaucoma occurs when the natural flow of fluid inside the eye becomes blocked, leading to a buildup of internal pressure that damages the optic nerve.

Most cases of glaucoma can be controlled with medication, but for some the medications become ineffective or intolerable. The next step is a filtering surgery to create a drainage channel to relieve the pressure. In some surgical patients however scar tissue later obstructs the drainage channel necessitating a second operation, which often fails. In addition, patients who have had cataracts removed are poor risks for successful filtering surgery.

Early findings from an NEI-sponsored randomized, controlled, clinical study show that patients who have had glaucoma or cataract surgery have almost a 50 percent better chance of successful surgery it if is followed by injections of an antimetabolite drug called 5-fluorouracil, or 5-FU. The drug impedes the growth of scar tissue. When the superior results of the combination therapy became evident, the investigators stopped the randomization and reported on the condition of all patients one year after surgery.

Of the patients who received 5-FU after surgery, 73 percent had filtering channels that were still maintaining satisfactory intraocular pressure after 1 year, while only 50 percent of those who had surgery alone had the same results. Although the 5-FU injections caused some mild and transient side effects in the first month after surgery, two-thirds of those receiving the drug did not need glaucoma medication to control their intraocular pressure. In the surgery-alone group, only about one-third maintained satisfactory pressure without medication. Moreover, of the patients needing medication after surgery, those in the 5-FU group needed fewer types of medications than did those who have surgery alone.

Although patient status after 1 year is a good predictor of long-term results, the investigators plan to follow the patients for 5 more years to determine how the surgical filters in the eyes of both groups continue to function.

H. NATIONAL INSTITUTE OF ARTHRITIS AND MUSCULOSKELETAL AND SKIN DISEASES

The National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) conducts and supports research on several diseases that affect older Americans, particularly osteoporosis, osteoarthritis and Paget's disease of bone.

Researchers Study Osteoporosis

Dr. Carl T. Brighton and his colleagues at the University of Pennsylvania in Philadelphia have applied a novel approach to study the use of electrical stimulation to treat osteoporosis in an animal model. Electrical stimulation is a technique developed by Dr. Brighton and others in which fractures that fail to heal are subjected to low-level electric fields and currents to stimulate the rate of bone growth and repair. Using this technique on rats, the researchers were able to increase bone mass in the lower limb and to reverse osteoporosis of the spine. This innovative research offers hope that loss of bone mass in osteoporosis can be reversed.

In other osteoporosis research, intramural scientist Dr. Mark E. Bolander and his colleagues have developed a method for evaluating the effect of estrogen on bone formation. Recent research has shown that bone cells contain binding sites for estrogen, called receptors, that attach to DNA in the cell. Using advanced molecular biology techniques, Dr. Bolander and his colleagues found that the level of estrogen receptor varies during fracture healing, implying that estrogen has a direct effect on bone formation. Increased knowledge about molecular action of estrogen during bone formation and healing should add significantly to researchers' understanding of osteoporosis and other bone disorders and, ultimately, to the ability of physicians to treat these disorders.

Early Osteoarthritis May Be Linked to a Genetic Abnormality

Osteoarthritis (OA) or degenerating joint disease is usually thought of as an inevitable part of aging. However, new studies show that in some families, where there is no identifiable cause for the disease, OA may be linked to a genetic abnormality.

NIAMS grantees Dr. Darwin J. Prockop at Jefferson Medical College in Philadelphia, PA, and Dr. Roland W. Moskowitz at Case Western Reserve University School of Medicine in Cleveland, OH, studied three generations of family members with primary OA who exhibited symptoms of the disease in their early twenties and thirties. After physical examinations and laboratory studies of these patients, the researchers ruled out other diseases. However, X-rays revealed abnormalities of multiple joints typical of primary OA and mild chondrodysplasia (abnormality of cartilage) in the spine. Blood cells from these patients were evaluated and genetically mapped. In each of these patients the researchers found a defect in or near the gene for type II procollagen, the precursor for collegan, the major structural protein of cartilage. According to the researchers, this defect may account for the early onset of this unique type of OA. This work may also help researchers understand causes of OA in older Americans.

Paget's Disease of the Bone May Be Caused by a Slow Virus

Paget's disease or osteitis deformans, a bone disease of unknown cause, affects more than 3 million older Americans. It is a chronic disease of the skeleton characterized by abnormal, rapid bone turnover. Bone-resorbing cells cause osteoclasts break down old bone to make way for new bone formation. In Paget's, this new bone is often dense but fragile. Bones of the spine, skull, pelvis, thighs, and lower legs are most commonly affected. With time these bones may become deformed and occasionally fracture spontaneously.

For many years it has been suggested that Paget's disease may be caused by a slow virus infection that lies dormant for many years. However, viral particles have never been isolated from the cells of Paget's patients. Drs. Michael M.C. Lai and Barbara Mills at the University of Southern California School of Medicine and School of Dentistry in Los Angeles, used biological engineering techniques to isolate cells from Paget's lesions and from a giant cell tumor which arose in one of these lesions. The researchers then used a genetically engineered viral sequence of the measles virus, the respiratory syncytia virus, and other paramyxoviruses to detect the virus-related material within the tissues. They were able to detect genetic information in the osteoclast cell that was related to the viruses. No virus-related material was detected in the normal cells. According to the researchers, this is the first clear-cut evidence of the relationship between slow growing viruses and Paget's disease of the bone.

Additional findings relevant to disorders that affect older people can be found in the NIAMS report on Arthritis, Rheumatic Diseases, and Related Disorders.

I. NATIONAL INSTITUTE ON DEAFNESS AND OTHER COMMUNICATION DISORDERS

Today more than half of the population age 65 and older are significantly affected by a communication disorder. Research into the effects of advancing age on hearing, vestibular function (balance), speech, voice, language, and chemical and tactile senses, is a major concern of the National Institute on Deafness and Other Communication Disorders (NIDCD). Created in October 1988, NIDCD currently manages a research portfolio in the communication sciences/disorders that has been primarily transferred from NINDS.

Hearing Problems Common in Older People Studied

Presbycusis (the loss of ability to perceive or discriminate sounds as a part of the aging process) is a prevalent but understudied disabling condition. In presbyusis, the inner ear is primarily affected although auditory nerve and brain stem degeneration may also occur. One-third of people 65 years and older have presbycusis sufficient to interfere with speech perception. The prevalence rises with increasing age.

Studies of the influence of factors such as genetics, noise exposure, cardiovascular status, systemic diseases, smoking, diet, personality, and stress types are contributing to a better understanding of the condition. The effect of known tissue changes combined with the cumulative effect of years of exposure to toxic influences is also being investigated.

Studies are identifying the contributions of varying aspects of presbycusis to the actual problems of speech, language, and understanding. This research is providing new information about structural, functional, and chemical changes in the aging auditory system. Anatomical and physiological studies are transferring new techniques from cellular and molecular biology to develop animal and human models for presbycusis. Clinical intervention research is aimed at detection, measurement, and rehabilitation (including hearing aid use).

Researchers have recently discovered that hair cells in the cochlears of both young and adult birds can regenerate if they have been damaged by toxic drugs or noise exposure. In some fish, the vestibular hair cells are replenished almost continuously throughout the life cycle. NIDCD researchers are studying these regenerating hair cells to define the biochemical and genetic mechanisms that initiate the regeneration process.

Researchers Investigate Problems With Balance

Most individuals over 70 report problems with dizziness and loss of balance. In fact, balance-related falls account for more than one-half of all accidental deaths in older people. When balance is impaired, the capability and desire for purposeful motor activity is diminished and there may be secondary effects on motivation, concentration, and memory.

NIDCD researchers are looking at adaptive changes in the vestibular system that occur with aging.

Relationship of Age and Smell Explored

Disorders of the chemosenses (taste and smell) present serious problems for older people. Without these senses older people may lose their desire to eat nutritious meals or to detect toxins in the home and workplace. In addition, these disorders can signal the existence of several diseases or conditions such as diabetes, hypertension, or malnutrition. Age appears to factor strongly in chemosensory disorders. NIDCD researchers have recently found that age takes a much greater toll on smell (olfaction) than taste.

Studies of the sense of smell provide a unique opportunity for researchers to explore fundamental mechanisms in the regeneration of nerve cells. Researchers have removed olfactory cells from patients with Alzheimer's disease to reveal microscopic pathologic changes similar to those already known to occur in the brain. Because olfactory nerve cells have a remarkable capacity to grow and divide throughout life, scientists will continue to study them to learn more about injured brains and spinal cord tissue.

J. DIVISION OF RESEARCH RESOURCES

At research facilities across the United States, the Division of Research Resources (DRR) supports and conducts research into the process of aging. Through its General Clinical Research Center (GCRC) program, DRR provides the research infrastructure for multidisciplinary studies on both children and adults. Specifically, DRR provides patient research facilities, computerized data management and analysis, as well as research nurses, dietitians, biostatisticians, and specialized laboratories for the translation of basic and clinical research into medical practice.

New Research Directions in Osteoporosis

One area of intense study is osteoporosis, especially among postmenopausal women. Studies conducted by DRR grantee, Dr. John Bilezikian and associates at the Columbia University GCRC in New York City have traced the weakening of osteoporotic bones in part to a possible abnormality in the parathyroid gland, which plays a role in regulating calcium in the bone. Dr. Bilezikian has demonstrated that the parathyroid's response is diminished in postmenopausal women who have osteoporosis.

Dr. Bilezikian administered phosphate to 8 postmenopausal women with osteoporosis and 10 women of similar age who showed no signs of the disease. Phosphate, which stimulates the parathyroid to secrete a hormone that increases bone calcium, produced a strong response in the women without osteoporosis and a weak response in women with osteoporosis. The finding indicates that a defect in the parathyroid gland might contribute to osteoporosis. Future research should examine how to improve the capacity of the parathyroid gland to compensate for the loss of calcium in patients with osteoporosis.

Spinal osteoporosis, a disease characterized by progressive loss of bone in the spine, affects about 5 million Americans, most commonly postmenopausal women. Because the bone loss weakens the spinal vertebrae, patients are susceptible to fractures of the spine, causing curvature of the back, back pain, and gastrointestinal distress. About one-half million persons suffer these fractures each year. Now, Dr. Charles Y. C. Pak, DRR grantee from the University of Texas Southwestern Medical Center GCRC in Dallas has conducted clinical tests which point to a new treatment to increase bone mass.

Dr. Pak's treatment combines a slow-release form of sodium fluoride with a calcium citrate supplement—a combination that increases bone mass and remineralizes bone. Conventional therapy, using estrogen and calcium supplements, prevents the development of osteoporosis when applied early in the postmenopausal period. The new treatment can help patients who have already sustained substantial bone loss.

In a multi-center trial led by the Texas GCRC, more than 300 patients were monitored for an average of 3.5 years. Following the new treatment, bone density in the lower spine stabilized or increased. Patients showed an average annual increase of 5.1 percent in bone mass for up to 4 years of study. Using bone biopsies, the researchers documented an increase in the amount of normally mineralized bone which was mechanically intact or improved. Adverse complications of treatment were minor; fewer than 5 percent of patients had gastrointestinal complications and only about 6 percent experienced rheumatic complications—none resulting in stress fractures.

Amino Acids Found to Influence Absorption of Levodopa

Parkinson's disease is an other common disorder in older people. Scientists have long known that its symptoms generally respond to therapy with drugs such as levodopa. Regular use of levodopa however may cause variable responses—relief of symptoms becomes neither reliable nor consistent.

Dietary protein affects the response to levodopa, but the reason why has been difficult to explain. DRR grantees led by Dr. John Nutt at the Oregon Health Sciences University GCRC in Portland analyzed the clinical response of five patients to meals with varying levels of protein. By monitoring the plasma level of the drug, they found that absorption of levodopa took place at the same rate regardless of the protein content of the meal. Yet the patients eating meals with the most protein showed the most fluctuations in response to the drug. Dr. Nutt concluded that the effect of dietary protein on the response to levodopa may result from elevated blood levels of amino acids derived from the digestion of dietary proteins.

These dietary amino acids compete with levodopa for entry into the brain. According to Dr. Nutt, elevated levels of amino acids in the blood can exclude the levodopa from the brain and, therefore, prevent a beneficial response. Reducing the levels of these amino acids may increase levodopa's therapeutic effectiveness.

The study of dopaminergic agents such as levodopa in Parkinson's disease is not only important because of the immediate clincal implications but also because it adds to our understanding of the brain's response to replacement therapies for neurotransmitter deficiencies. As a result, what is learned in Parkinson's disease may be important in other disorders such as Alzheimer's disease, in which the deficiency of another neurotransmitter is believed to be particularly critical.

K. NATIONAL CENTER FOR NURSING RESEARCH

The National Center for Nursing Research (NCNR) focuses on the causes of mental and physical dysfunction in older Americans and on ways to help older Americans maintain their physical and mental function abilities. NCNR also supports research on stress and coping associated with family caregiving and on improving methods of care at home.

Reducing the Risks of Developing Pressure Sores

Older patients in nursing homes and other chronic care facilities are at an increased risk of developing pressure sores. These sores can cause extreme discomfort to the patient and increase the risks of infection and death.

NCNR grantee Dr. Nancy Bergstrom at the College of Nursing, University of Nebraska Medical Center in Omaha, is testing and refining a scale that nurses and other health care workers can use to identify individuals at high risk for developing pressure sores. Dr. Bergstrom and her colleagues are testing the scale in up to 1,100 patients in nursing homes, hospitals, and at home. The scale assesses the following factors associated with the development of pressure sores: Undernutrition, reduced skin sensation, low activity levels, moisture remaining on the skin, and friction.

Dr. Bergstrom and her colleagues will also measure other conditions that might affect the development of pressure sores, such as blood pressure and skin temperature. In addition, they will look for differences in risk among racial groups. Patients in hospitals and nursing homes will be evaluated three times a week; those cared for at home will be evaluated once a week.

An accurate scale to predict which patients are at highest risk of developing pressure sores can help caregivers offer prompt preventive treatment. It may also reduce the costs of care by making sure that expensive preventive measures are available to those patients with the greatest need.

IV. OUTLOOK

The breadth of these research highlights demonstrates the remarkable opportunities available to researchers interested in aging issues. Through its research programs, the NIH is committed to implementing a research agenda that will lead to a fuller understanding of the biomedical, behavioral, and social processes that impact on aging. Since 1974, the NIA has been the leader for these research efforts.

We are in an aging society—we appreciate the benefits of this longevity, but can also anticipate the drawbacks. Research conducted or supported by NIA touches the lives of each and every American. Through this comprehensive research effort we are learning more about what it means to grow old. We are seeing that aging does not have to be synonymous with decline, and we are learning that the changes we make today can improve our chances of remaining healthy, active, and independent.

NATIONAL INSTITUTE OF MENTAL HEALTH

PROGRAM ON ALZHEIMER'S DISEASE, RELATED DEMENTIAS, AND MENTAL DISORDERS OF AGING

The National Institute of Mental Health (NIMH) conducts and supports a wide range of research and related activities with direct and indirect relevance to issues of aging. This includes basic research in the neurosciences and behavioral sciences, clinical research in the geriatric mental disorders, and services research related to the utilization and financing of mental health care. Clinical and research training programs as well as service demonstration programs are also supported.

In fiscal year 1989 the NIMH budget for research, training, and demonstrations directly concerned with aging was $26,336,000. An additional $20,332,000 was spent for basic research and research training related to issues of aging. Total NIMH direct and related expenditures for aging in FY 1989, then were $46,668,000.

Expenditures were made in the following categories:

NIMH EXPENDITURES IN AGING, FISCAL YEAR 1989

[In thousands of dollars] [1]

	Direct	Related
Extramural research	$19,770	$16,287
Intramural research	4,874	
Research training	465	2,901
Clinical training	722	438
Demonstrations	505	706
Total	26,336	20,332
Grand total	46,668	

[1] For consistency and comparative purposes, the fiscal year 1989 funding amounts shown for Aging in this report have been calculated using the same approach as last year's Aging Report. The Congressional Justification materials for the fiscal year 1991 President's Budget, however, indicate that NIMH supported only $35.2 million of Aging research in fiscal year 1989. This latter amount is based on a revised and more limited definition of NIMH's "Aging" activities. Beginning next year, the Aging Report figures will be calculated using the same approach as the Congressional Justification.

This report provides information on program developments in research, research training, and clinical training, and also provides information on developments in mental health services demonstrations for the elderly.

EXTRAMURAL PROGRAMS

Clinical Research

The Institute supports a broad spectrum of research projects in the area of clinical research. The core of the research program is to understand and address more effectively the causes, prevention, treatments, and rehabilitation of mental illness in the elderly. Special attention is paid to research in Alzheimer's disease.

Research in the geriatric mental disorders has developed into a coherent and sophisticated body of knowledge. Using the best of contemporary approaches in molecular genetics and neurobiology, investigators in Alzheimer's disease are involved in studies of chromosomal abnormalities on chromosome 21; neurobiological approaches to the development of diagnostic markers; imaging studies using PET, MRI, and electrophysiological mapping procedures; and neuropsychological studies. While the treatment of the core cognitive symptoms of Alzheimer's disease remains elusive, there are some promising findings using a new cholinesterase inhibitor, as well as with approaches to treatment of associated psychotic symptoms. Such studies may result in strategies that could well improve the community care of these patients and could contribute to an overall strategy for patient care in the nursing home setting. A significant aspect of care for Alzheimer's disease patients is the stress that it places on the family responsible for providing support to the patient. Investigators have highlighted the guilt, demoralization, anger, and depression associated with this burden of care and have demonstrated the immunosuppressive effect of this chronic stress.

In other areas of research, age of onset has been shown to be a significant concern in schizophrenia and in depressive disorder with investigation now explicating the impact of a variable age of onset on clinical presentation, the course of disease, and the outcome of treatment.

Research on acute treatment of depression in older patients has shown that treatment response to medications alone, and to psychotherapy alone or both treatments combined, is substantial, though naturalistic followup has shown high rates of relapse and recurrence. Research to establish protocols for continuation and maintenance treatment is now underway.

Basic Research

The Institute provides support for basic research in the neurosciences, behavioral sciences, and the area of health and behavior. General program areas include biological aspects of behavior; molecular biology; neurobiology; psychopharmacology; cognitive processes, personality, emotion, and psychosocial processes; factors influencing behavioral development and modification; biological, psychological, and psychosocial aspects of stress and other psychological states; behavioral medicine, psychoimmunology; and research on Acquired Immunodeficiency Syndrome (AIDS).

Services Research and Demonstrations

Support is provided by the Institute for research and research training that is contributing to the scientific base of knowledge on the organization, financing and delivery of mental health services to the aging. In the mental health services research area, work continued on development of a Resource-Based Relative Value Scale for possible use in reimbursing psychiatrists for services provided under the Medicare B program. Support was provided to five research grants that focussed on the financing of mental health services to the elderly, the response practices of nursing homes to patients with behavioral problems, and the effectiveness of consultation-liaison psychiatric services for elderly hip fracture patients. An Institute survey was conducted to provide a detailed profile of the characteristics and types of treatment received by elderly patients during 1986 in inpatient, outpatient, and partial care mental health services programs (see RESEARCH HIGHLIGHTS). Institute staff published results of their research on prescribing of psychotropic drugs in nursing homes and on the adequacy of research on mental disorders in nursing homes. In an effort to enhance the data base for mental health services research devoted to the elderly, an Institute staff member serves as technical observer to the Interagency Forum on Aging-Related Statistics, a group established to encourage cooperation among Federal agencies in the development, collection, analysis, and dissemination of data pertaining to the older population.

Demonstrations of innovative models of community-based mental health services for the elderly are supported by the Institute through grant awards made to State Departments of Mental Health.

Research Training

National Research Service Awards, including individual fellowships and institutional awards at the predoctoral or postdoctoral levels, provide support for the training of research scientists in the area of mental health and aging. The major orientation is toward postdoctoral training in departments and institutions with major research programs in mental health and aging. In particular, program emphasis in FY 1989 was to establish research training programs for basic and clinical scientists at each of the NIMH supported Clinical Reserach Centers on Psychopathology of the Elderly.

Clinical Training

In FY 1988 the NIMH established a new program, the Clinical Faculty Scholar award, to support the development of clinician scholar/investigators about to launch academic careers. This program was continued in FY 1989 and a program of institutional awards to support stipends for trainees was initiated in each of the core mental health disciplines.

INTRAMURAL PROGRAMS

Intramural Research

In FY 1989 the Division of Intramural Research spent $4,874,000 or 7.3 percent of its total budget on research related to aging.

A summary of the investigations now being conducted in the Division of Intramural Research, and selected intramural projects which relate to mental disorders of aging, including Alzheimer's Disease, are presented.

Developing and testing pharmacological challenge paradigms with older patients and controls remains a primary focus of the intramural research program. As in previous years, the unit continues to concentrate on improving the clinical diagnostic accuracy and phenomenological description of Alzheimer's disease by developing and testing new rating instruments.

In a signficant new advance in cholinergic pharmacology, the unit studied the effects of a peptide, thyrotropin-releasing hormone (TRH), on the memory impairing effects of scopolamine. In young controls the TRH helped blunt or lessen the effects of scopolamine, thereby suggesting a possible neuromodulatory role of TRH on the cholinergic system. These results suggest a potential role of TRH in the treatment of Alzheimer's disease. In addition, a series of experiments has been started to test combined therapeutic agents such as the anticholinesterase inhibitor, physostigmine, with the monoamine oxidase (MAO) inhibitor, L-deprenyl. This strategy is designed to assess whether individual agents act additively or synergistically when given in therapeutic combinations to Alzheimer patients.

Another pharmacological approach involves a series of studies with serotonergic agent, m-chlorophenylpiperazine (m-CPP). Because the serontonin (5-HT) system is severly impaired in Alzheimer's disease, there is potential therapeutic benefit from serotonergically active compounds. Initial findings suggest that m-CPP is safely tolerated and that Alzheimer patients demonstrate increased behavioral but not neuroendocrine sensitivity to challenge with the drug. The next step will include chronic treatment with m-CPP and other serotonergic agents. These studies are currently ongoing.

Finally, the unit continues to develop new rating scales to assess elderly patients. During the last year, the Dementia Mood Assessment Scale (DMAS) continued to be used to measure depression in Alzheimer's disease. Two new rating instruments were also created. The first, a scale to measure the activities of daily living, called the daily Activities Questionnaire (DAQ), allows quantitative measurement of individual functioning over time; and the second, a Clock Drawing Task, focuses on the mostly nonverbal visuospatial skills of individual Alzheimer patients compared to controls. Both instruments are designed for research purposes but also have immediate clinical applications and will be helpful in testing diagnostic and prognostic accuracy in Alzheimer patients when used longitudinally.

Intramural scientists are using sophisticated imaging techniques and animal models as well as new classes of drugs and are continuing to build a base of knowledge about diseases afflicting the aged.

Studies in Cerebral Circulation and Metabolism and Protein Synthesis

The NIMH intramural research program conducts basic research and is especially noted for its development and application of methods that created the foundation of the new field of imaging of local physiological and biochemical processes and of local functional activities in the nervous system. These methods were initially developed 10 years ago for use in animals with quantitative autoradiorgraphy and then adapted for use in man with positron emission tomography (PET). The deoxyglucose method, both in its original autoradiographic version and in its PET adaptation for use in human subjects, is widely used throughout the world. Major progress has been made toward the adaptation of the deoxyglucose method for use in pathological tissues.

The most recent technique developed by the program is designed to measure regional rates of protein synthesis in brain. Protein synthesis is probably the most important biochemical process underlying the development, maturation, plasticity, maintenance and long-term regulation of the nature and degree of functional activity of the nervous system. The structural, functional, and metabolic properties of tissues largely reflect the role of structural and enzymatic proteins. In the nervous system proteins serve as hormones and are the parent compounds of peptide neurotransmitters. It is, therefore, certain that changes in protein synthesis can and do alter function and that some mental and neurological dysfunctions reflect disturbances in this vital biochemical process. Studies carried out in the program have already demonstrated the usefulness of the method for protein synthesis in studies of neural regeneration, plasticity, and the involutional changes which may occur in the process of aging.

Muscarinic Receptors

Using a prototype SPECT (single Photon Emission Computed Tomography) scanner, NIMH intramural scientists have for the first time visualized the location of cholinergic neurotransmitter systems in the living human brain. The scans, which trace the uptake of iodinated QNB (a cholinergic antagonist), reveal the distribution of muscarinic acetylcholine receptors or binding sites on cell surfaces. These binding proteins are part of a messenger chemical system known to be associated with memory loss in Alzheimer's disease. SPECT scan studies reveal major deficiencies in muscarinic acetylcholine receptors in the parietal cortex and other brain regions of Alzheimer's patients.

Pharmacology in Cognitive Memory

Evidence from patients with Alzheimer's disease suggests that the basal forebrain cholinergic system plays an important role in memory. Scientists in the intramural program have found that recognition memory in normal monkeys can be improved by administration of the cholinesterase inhibitor physostigmine and impaired by the cholinergic muscarinic-receptor blocker scopolamine. Spatial memory has also been found to be impaired by scopolamine. THC (the active ingredient in marijuana) and scopolamine (an anticholinergic agent) impair memory at different time points, suggesting that THC acts on memory through a noncholinergic mechanism.

Tetrahydrobiopterin

Levels of tetrahydrobiopterin (BH4) have been found to be altered in Alzheimer's patients by the scientists in the intramural program. An earlier finding that it is only the subgroup of patients with movement disorders who have low CSF levels of BH4 has been extended by showing that those patients with myoclonus (shock-like contractions of the muscles) also show the BH4 deficit. These findings are essential in providing a criterion for the selection of the most suitable Alzheimer patients who might benefit from BH4 administration. Clinical follow-up is under way.

Galanin

One group of scientists is finding that neuropeptide modulators of brain cholinergic neuronal activity can affect experimentally induced memory impairment in animals and humans. Neuropeptides are short chains of amino acids believed to fine-tune the action of major brain chemical messengers or classical neurotransmitters. The research team employs animal models to test potential new drugs that affect classical neurotransmitter function by targeting particular neuropeptide systems. This strategy holds promise for new, more selective classes of drugs that are now available for treating illnesses such as Alzheimer's disease.

These studies focus on galanin, a peptide that coexists with acetylcholine in neurons that mediate memory processing. Using an animal model of Alzheimer's disease, the research team found that while acetylcholine improves the maze-running performance of rats whose memory systems are chemically impaired, this beneficial effect of acetylcholine can be inhibited by galanin. This work suggests that a drug that antagonizes galanin might help Alzheimer's patients, whose acetylcholine systems are similarly impaired. This laboratory is among several that are testing effects of potential galanin antagonists on memory tasks in animal models of dementia.

Samatostatin

Intramural scientists continue studies of samatostatin in relation to neuropsychiatric disorders. Some of their findings include: (1) CSF samatostatin was significantly decreased in a large group of Alzheimer's patients compared with the age-matched controls; (2) a trend for significantly lower values was seen in Alzheimer's patients compared with elderly depressives, with values in the latter group significantly lower than controls; and (3) a significant correlation was observed between CSF SRIF and ratings of depression in Alzheimer's patients.

DHEA

Intramural scientists continue to study DHEA (dydroepiandrosterone) levels in patients with Alzheimer's disease. DHEA levels were lowered in patients with Alzheimer's compared to age-matched controls. Observations that high levels of the hormone DHEA may provide protection against viral illness have led to the initiation of clinical trials of the hormone in Alzheimer's disease patients to determine whether the administration of DHEA has a beneficial effect.

DHHS Council on Alzheimer's Disease

The DHHS Council on Alzheimer's Disease is essentially the former DHHS Secretary's Task Force on Alzheimer's Disease renamed. The Council was established by the Alzheimer's Disease Services Research Act of 1986 (Title IX of Public Law 99-660). Key functions of the Council include identifying promising areas of Alzheimer's disease research, coordinating this research, sharing information, and facilitating the translation of the research into practice. The Council is chaired by the Assistant Secretary for Health. Other membership consists of the Surgeon General, the Assistant Secretary for Health Planning and Evaluation, the Commissioner of the Administration on Aging, the Directors of NIA, NIMH, NINDS, NIAID and NCHSR/HCTA, and representatives of the Veterans Administration, Health Care Financing Administration, and Health Resources and Services Administration. Representation from the National Center for Nursing Research has recently been added.

The Council meets twice annually, and is required to submit an annual report to Congress and to the public detailing the plans of four member agencies (NIA, NIMH, NCHSR/HCTA, and HCFA) regarding research on services for dementia patients and their families. Prior reports were submitted in January 1988 and January 1989, the latter of which also detailed progress in federally sponsored Alzheimer research supported by all member agencies of the Council. The Council met most recently in September 1989 to discuss the draft of the next report/update of plans. The NIMH plan in this regard was mandated to provide for research concerning: (a) mental health services and treatment modalities relevant to mental, behavioral and psychological problems associated with Alzheimer's disease; (b) methods for providing comprehensive multidimensional assessments; (c) the optimal range and cost-effectiveness of community and institutional services; (d) the efficacy of special care units; (e) methods of combining the services of health care professionals with informal support services provided by family and friends; (f) interventions to reduce the psychological, social, and physical problems of caregiving family members; and (g) methods of improving service delivery.

As determined at the most recent meeting, on behalf of the Council, its support staff from the Institute will also assemble and distribute in 1990 a detailed compilation of all the research projects, demonstrations, and other activities on Alzheimer's disease and related dementias that are currently funded by its member agencies as of January 1, 1990.

DHHS Advisory Panel on Alzheimer's Disease

The DHHS Advisory Panel on Alzheimer's Disease was established by Title IX of Public Law 99-660 ("Alzheimer's Disease Services Research Act") to assist the DHHS Secretary and DHHS Council on Alzheimer's Disease in identifying priorities and emerging issues regarding Alzheimer's disease and related dementias, and the care of afflicted individuals. The Panel is composed of 15 non-Federal appointees who are prominent researchers or other experts on Alzheimer's disease, and five members of the DHHS Council (including the NIMH Director) who serve ex officio. Members serve for the 4-year life legislated for the Panel (FY 1988-91).

The Panel is mandated to center its advice on emerging issues and promising initiatives, or research directions, in four areas related to Alzheimer's disease: (a) biomedical research; (b) research on services for Alzheimer's patients and their families; (c) home and community based service provision systems; and (d) financing of health care and social services. The Panel is required to prepare annual reports (transmitted to Congress, the Secretary, the Council, and the public) giving recommendations for administrative and legislative actions to improve services and provide for promising biomedical research.

The Panel, or its subcommittees, met on three occasions during 1988, leading up to the submission of its first annual report to the Congress, the Secretary of DHHS, and the DHHS Council on Alzheimer's Disease in March 1989. The Panel met again in June 1989 and began discussing work on subsequent reports, which are likely to address a series of specific topics, such as personnel and training issues in the care of Alzheimer victims. At that time the Panel also held an Open Forum in the Dirksen Senate Office Building, at which several investigators presented recent advances in biomedical research on the disease, family members from Alzheimer advocacy groups discussed their responses to the Panel's report, and the Panel heard from Congressional staff members about responses to the recommendations in the report. The report is currently being printed for wider distribution by the Government Printing Office. In November 1989, members of the Panel presented the ideas in the report at the annual meeting of the Gerontological Society of America, and engaged that professional audience in discussion of its recommendations.

The $100,000 per annum that was authorized for Panel activities has come from a tap on appropriate DHHS agencies, including NIMH, in FY 1988 and FY 1989, and has been requested as part of the ADAMHA budget for FY 1990 and FY 1991.

RESEARCH HIGHLIGHTS

Diagnostic Markers in Alzheimer's Disease

Geoge Zubenko of the University of Pittsburgh (MH43261 and KO1 MH00540) has continued to extend and clarify his initial findings of a blood platelet abnormality, namely, increased membrane fluidity, in Alzheimer's disease patients. Zubenko now has evidence that this membrane abnormality identifies a subgroup of patients with distinct clinical features—including an earlier symptomatic onset, a more rapidly progressive decline, and greater likelihood of a family history of dementia—and that it appears to be a stable, familial trait veritcally transmitted in families through inheritance of a highly penetrant autosomal gene. Most recently, Zubenko has discovered that the genetic locus (called PMF) for this trait may reside on the long-arm of chromosome 21, where several other genes related to the biology of Alzheimer's disease have previously been localized. He is now beginning to do a linkage analysis study to determine whether the PMF locus does definitively map on this region of chromosome 21 and whether it is distinct from the genes for familial Alzheimer's disease and the beta-amyloid precursor protein, or may be located more closely with a region associated with the development of Down's syndrome. This work is progressing rapidly, and has exciting potential both for clarifying the etiology of Alzheimer's disease and for yielding a biological marker useful in the diagnostic identification of a particular subtype of the disease.

Neuropathology of Alzheimer's Disease

Dr. Carol Miller of the University of Southern California (MH39145) has developed a panel of antibodies drawn from drosophila that form a comprehensive panel of agents to react against human central nervous system (CNS) tissue, and, with suitable staining, could locate specifc proteins within the subcellular structure of the CNS. Dr. Miller's pilot data established early that there was remarkable specificity afforded by the panel of antibodies, for a wide range of mitochondrial and other subcellular structures, across the nervous system. Moreover, there were sharp specificities in these target proteins, between various neuronal populations, so that some populations of neurons would selectively have some of the subcellular structures stained, whereas the same subcellular structures in other populations would fail to attract the probes in both normal and Alzheimer brains.

Unique and major findings have emerged: First, retinal ganglion cells were found to undergo degeneration in the apparent absence of neurofibrillary tangles, neuritic plaques, angiopathy, or transynaptic loss, thus suggesting a primary form of neural degeneration. A related finding is that monoclonal antibody (MAb) 3F12 (which selectively labels AD-vulnerable neurons) reacts with cochlear nucleus neurons, while the adjacent vestibular nucleus neurons (not affected in AD) are labeled by MAb 6A2. These finding suggest that significant sensory deafferentation appears to occur in the AD patient. In all Alzheimer's cases, the pathology was limited to the ganglion cell layer, with marked dropout of ganglion cells and nerve fiber layer atrophy present in the most severely affected retinas. It is notable that there were no neurofibrillary tangles within the ganglion cells, or neuritic plaques or amyloid angiopathy in the retina. The identification of a degenerating neuronal population not associated with neurofibrillary tangles in Alzheimer's disease is of great interest, since neuronal loss represents one of the foremost pathologic changes in Alzheimer's. Accordingly, Miller's data suggest that neurofibrillary tangles are not requisite for cell death in Alzheimer's dementia. Miller's creative and powerful application of monoclonal and DNA technologies on CNS tissue obtained from patients with documented Alzheimer's disease at autopsy, has yielded findings on the cutting edge of dementia research.

Drug Treatments in Alzheimer's Disease

In an NIMH-supported open trial with Alzheimer's disease patients, Robert Becker and colleagues at Southern Illinois University (MH41821) found that a long-acting anticholinesterase drug (metrifonate) achieved up to 80 percent inhibition of cholinesterase without causing interfering side effects. Furthermore, administration of metrifonate for up to 5 months appeared safe, and both clinical reports from patients and their families and psychological evaluations on the Alzheimer Disease Assessment Scale indicated that metrifonate may imporve cognitive performance in Alzheimer patients. These findings suggest that this drug may be highly useful in further research and may enable definitive tests of the hypothesis that depletion of the neurotransmitter acetylcholine is the central neurobiological pathway, leading to the cognitive deficits seen in Alzheimer's disease. Becker and his colleagues are now being funded to extend this line of research into a double-blind clinical trial if metrifonate in Alzheimer's disease.

Sleep, Depression, and Dementia in Late Life

In an ongoing study of sleep in late life mental disorder, Charles F. Reynolds, III, of the University of Pittsburgh (MH37869) has made a number of key observations concerning the prognostic significance of EEG sleep changes in late-life depression:

—pretreatment REM latency was significantly lower in depressed geriatric patients who would suffer recurrence compared with those who remained well during maintenance drug therapy;

—early REM sleep rebound and an antidpressant response to one night of total sleep deprivation corrently predicted in 88 percent of cases which patients would show a course consistent with depressive pseudodementia versus progressive dementia; and

—two-year mortality in patients with mixed depression and cognitive impairment was correctly predicted in 77 percent of cases by lengthened REM latency and increased apnea-hypopnea.

Response to Tricyclic Antidepressants in Geriatric Patients

Tricyclic antidepressants (TCAs) are widely used and show good results in a large proportion of adults with depressive disorder. Despite this, elderly patients are particularly sensitive to the side effects of TCAs, and there is some evidence that the percentage of elderly depressed patients showing a complete therapeutic response to TCAs is lower than in young and middleaged depressed patients. Charles Nemeroff and colleagues at the Duke University Clinical Research Center on Psychopathology of the Elderly (MH40159) have shown that the inhibition of serotonin uptake into platelets by imipramine was markedly reduced in elderly depressed patients (compared to younger patients and young and older normal controls). This reduced sensitivity to imipramine may explain the reduced responsiveness of geriatric patients to imipramine and other TCAs.

Geriatric Psychopharmacology

Studies continue to evaluate the effects of age, gender and additional relevant variables on the pharmacokinetics and pharmacodynamics of psychotropic drugs in humans, and to advance the methodological sophistication of this line of research (MH34223, R. Shader, Tufts University, "Applications of Pharmacokinetics in Clinical Psychiatry"). Across a large number of studies, Shader and his colleagues have found that various widely used benzodiazepines with approximately equivalent anxiolytic properties clinically have differing effects in terms of sedation, and impairments of memory and performance. These pharmacodynamic effects are explained in part by pharmacokinetic variations among the drugs, but also are mediated by the differential receptor binding of these agents. Although, for many benzodiazepines (clonazepam, estazolam, lorazepam, triazolam), receptor binding is related to brain concentrations of the drugs according to a sigmoid function, alprazolam appears to interact with benzodiazepine receptors in a unique way. Furthermore, receptor binding is influenced by various other factors, including stress and aging. Shader's current studies are emphasizing the effects of chronic (i.e., long-term) use of benzodiazepines and of alcohol, as well as changes with age.

In other developments, Shader found that pharmacokinetic clearance of chlordiazepoxide is reduced (and its half-life prolonged) in elderly men, but not in elderly women—a pattern that has been noted with various other benzodiazepines. His research group also demonstrated that sleep disorder (rebound insomnia) that often occurs following discontinuation of triazolam can be attenuated by a gradual tapering regimen. In addition to such findings, the research group has contributed to neuropharmacological research by developing analytic methods for a number of medications, and by publishing a computer program for pharmacokinetic analysis using nonlinear regression techniques.

Stress and Burden: Family Care of the Elderly

Stress associated with family-based care of the elderly has significant social, emotional, and health consequences. Research on the primary caregiver, who is generally a spouse or daughter, has documented an array of psychological and emotional burdens. Approximately 54 percent of Alzheimer's disease caregivers suffer from a depressive disorder. In addition, caregivers have increased rates of depressive symptomatology, anxiety, anger and other stress-related morbidity (D. Gallagher, K. Yesavage, Stanford University MH40041 "Clinical Research Center on Alzheimer's disease"). Significantly, caregivers compared to controls, were no more likely to have a relative with an affective disorder or to have had an episode of affective disorder prior to undertaking the role of caregiver (Kiecolt-Glaser, Ohio State University, MH42096).

The findings by Gallagher that AD caregivers have elevated levels of anger underscores the importance of a new multidisciplinary longitudinal study being conducted (P. Vitaliano, University of Washington, R01 MH42840-1). One aspect of this study is an examination of caregiver expression of anger and psychosocial, immunologic, and cardiovascular distress.

Further, there is preliminary evidence that the stress of caregiving is associated with impaired immune functioning and may have long term health consequence. Research focusing on the chronic impact of caregiving on immune functioning and psychological stress is being conducted (J. Kiecolt-Glaser, Ohio State University, MH42096-01 "Caregivers of Alzheimer's Disease Victims: Stress and Mental Health").

The most recent immunological data from the Kiecolt-Glaser study continues to provide powerful support for the negative changes in immune function in caregivers compared to matched controls. From year one to year two they found that immune functioning continued to decline in contrast to nonsignificant changes in controls. This was somewhat surprising because the caregivers had been providing care for an average of 4 to 6 years, thus it might be expected that the immunological differences would be relatively stable at this point in time. In addition, they now have immunological data available for caregivers whose A.D. patient died or had moved to an institution. These caregivers, in contrast to those providing continuous at-home-caregiving, showed significant improvement in depression (Hamilton, Beck). However, the immunological data show continued decline despite psychological improvement. These results are intriguing because they may indicate long term physiological alterations in caregivers following years of chronic stress.

One immediate application of this research, however, is that immune functioning can be used as a biological marker to corroborate self-report health measures. This is, in fact, now being done in a major study of the impact of AD caregiving on adaptive health outcomes as influenced by coping style, stress, support, and other person-environment factors (I. Grant, University of California, San Diego, MH42840-01). The investigations of this research suggest that neuroendocrine measures and immunologic variables may help distinguish successful from unsuccessful caregivers, and may predict those who will themselves develop an illness.

Critical events in the role of caregiving have differential impacts on individuals. Several current studies are examining, prospectively, large community samples to better understand crisis versus adaptation in caregivers (R. Pruchno, Philadelphia Geriatric Center, MH 39546-01) and to identify the range of stressors experienced by caregivers and their access to and use of formal and informal supports (L. Pearlin, University of California, San Francisco, MH42122-01).

There is reason to believe that the stress effects of caregiving may be buffered by a variety of factors. Several recent studies are undertaking an examination of the buffering effects of different types of social support and interaction (K. Pillemer, University of New Hampshire MH42163) and caregiver coping (P. Lawton, Philadelphia Geriatric Center MH43371). Building on findings that caregivers have elevated levels of anger and depression, a major intervention study to examine the management of these emotions is being undertaken (Gallagher, Standord, MH43407). Both psychological and medical (primarily cardiovascular) indices will be used to determine treatment effectiveness.

While most studies on caregiving have focused on primary caregivers, there is now evidence that the family system as a whole is at risk for negative consequences. This is particularly the case when the primary caregiver is a married daughter with children still at home (E. Brody, Philadelphia Geriatric Center, MH35252-06, "Parent Care, Sibling Relationships, and Mental Health"). There is also evidence that geographically distant family members experience mental health distress when a parent develops Alzheimer's disease.

This research implies that treatment of an older person necessarily includes involvement with the family. Families are not only active participants in care but, by and large, willing and proactive partners. In addition, families themselves need support, and they can often benefit from mental health interventions directed toward them. Many such interventions—both therapeutic and preventive—are being used with families caring for the older disabled person. Self-help and mutual support groups are growing in popularity and effectiveness.

Mental Disorders in Nursing Home Settings

A study by Institute staff and related researchers suggests the need for more primary care physician training in the proper and effective prescribing of psychotropic medications. The analysis examined the prescribing of psychotropics by primary care physicians in nursing homes (Beardsley, Larson, Burns, Thompson, and Kamerow: *The Journal of the American Geriatric Society*, Vol. 37, No. 4, pgs 327-330, 1989), using data from the National Nursing Home Pretest, a random sample of 150 homes (Skilled and Intermediate Care), stratified by bed size and type of ownership, with the sampling occurring in four metropolitan U.S. areas. Findings from this study included: (1) more than 20 percent of those patients receiving a psychotropic medication did not have a corresponding mental disorder diagnosis: (2) more than 25 percent of those receiving one psychotropic medication were receiving a second psychotropic medication as well: and (3) for those receiving at least one psychotropic medication, they were simultaneously receiving, on the average, an additional 3.3 nonpsychotropic medications.

Two other studies by Institute staff and related researchers found a paucity of research on mental disorders in nursing homes published in major geriatric and psychiatry journals. In a systematic analysis of all quantified studies published in three major clinical geriatric journals (Beardsley, Larson, Lyons, Gottlieb, Rabins, and Rovner: *Journal of Gerontology: Medical Sciences* Vol. 44, No. 1, pgs. M30-35, 1989), the authors found that all three of the journals had published only about 5 percent of their geriatric research studies conducted in nursing home contexts. Of the 50 studies conducted in nursing home environments, very few included factors of mental health services. Only one study assessed the impact of counseling, while five studies assessed improving specific patient symptoms via behavior modification techniques. Only four of the studies evaluated the use of psychotropic medication techiques. Only four of the studies evaluated the use of psychotropic medications, but none of these four studied either antianxiety or antipsychotic medications, the most frequently used and the most problematic nursing home psychotropic drugs.

In a second systematic analysis published in FY 1989 (Larson, Lyons, Hohmann, Beardsley, Huckeba, Rabins, and Lebowitz: *International Journal of Geriatric Psychiatry* Vol. 4, No. 3, pgs. 129-134, 1989), the authors found that between 1966 and 1985 very few nursing home studies were published in *The American Journal of Psychiatry, Archives of General Psychiatry*, and *Hospital and Community Psychiatry*. This analysis found that only 33 articles, or one-fourth of 1 percent all articles published in the two decades surveyed and in the three psychiatry journals reviewed, concerned nursing home populations. Only 15 of the 33 nursing home articles included quantified data, with the remainder being either reviews of the literature, commentaries or case reports. In both of the systematic reviews of published articles, the research that was published was found to suffer from design, methodological and analytic shortcomings.

A review of nursing home grant applications submitted to the Institute during the years 1975 through 1986 found proportions similarly low to the proportion of articles found in the clinical geriatric journals. Only 0.3 percent, or 61 of 20.904 applications submitted, were to conduct research in nursing home environments. Of the 61 submitted, 67 percent were disapproved, 21 percent approved but not funded, and only 12 percent were funded.

Medicare and Prospective Payment of Psychiatric Services

Researchers at the Harvard School of Public Health are refining a Resource-Based Relative Value Scale (RBRVS) methodology for possible use in reimbursing psychiatrists under the Medicare Part B program. This Institute-funded project (Contract No. NIMH 278-87-0024) is part of a larger study being financed by the Health Care Financing Adminstration (HCFA) in response to a Congressional mandate (Consolidated Budget Reconciliation Act of 1985) to the Secretary of the Department of Health and Human Services to develop a relative value scale that establishes a numerical relationship among the various physicians' services for which payment may be made under the Medicare Part B program or under State plans approved under Title XIX (Medicaid).

The development of the overall Relative Value Scale Study evolves in part from an interest in developing a prospective payment system for various medical specialties that has the potential of more accurately reflecting the various resource inputs by medical specialists than the current customary, prevailing, and reasonable charge (CPR) system utilized in the Medicare Program. The new methodology measures five major components of physician practice by assigning a numerical value for a variety of procedures used by each of the specialties, including operative or encounter time, pre- and post-operative or encounter time, complexity or intensity per unit of time in performing the procedure, overhead costs, and the amortized value of the opportunity cost for specialty training after medical school.

Preliminary findings for the first phase of the NIMH study, directed by Dr. William C. Hsiao, Professor of Economics and Health Policy at the Harvard School, indicate that fees paid to psychiatrists under the Medicare Part B prgram would increase by approximately 7 percent. However, because of sample size limitations in this first phase of the study, as well as the limited number of psychiatric procedures used in this phase under the Physician's Current Procedural Terminology, fourth edition (CPT-4) and the need for more current overhead costs, a second phase, 15-month refinement of the initial analysis is being conducted by the Harvard researchers. The refinement analysis, scheduled for completion on June 30, 1989, is financed by the Institute at a cost of $209,621. This research is being conducted in close collaboration with the American Psychiatric Association and the Academy of Child and Adolescent Psychiatry, which have work groups that are considering revisions to the CPT-4 procedural classification system used by the Medicare Program.

Survey of Mental Health Services Use by the Elderly

The 1986 sample survey of inpatient, outpatient, and partial care programs conducted by the Survey and Reports Branch, Division of Biometry and Applied Sciences, National Institute of Mental Health, collected detailed information about the characteristics and treatment of the elderly population in mental health organizations. An estimated 17,909 elderly persons 65 years old or older were under care on April 1, 1986, in inpatient psychiatric services of specialty mental health organizations, and 130,443 elderly were admitted to these inpatient programs during 1986. When comparing the representation of the elderly in the under care and admission populations of inpatient programs, the elderly represented a slightly larger percentage of those under care than of those admitted (11 percent v. 8 percent). In outpatient psychiatric programs, 89,590 elderly persons were under care on April 1, 1986, and 66,962 elderly were admitted during 1986. A dramatic difference existed in the percentage of elderly represented in the under care and admission populations of State and county mental hospital outpatient programs. The elderly represented 12 percent of the population under care in these outpatient programs, but only 1 percent of the admission population. In partial care programs, an estimated 10,478 elderly were under care on April 1, 1986, and 7,512 were admitted during the year.

PROGRAM DEVELOPMENT—INITIATIVES FOR FY 1990

There are several initiatives planned for FY 1990 in the Institute, these include program development in the following areas:

Depression in the Elderly

Three major activities are planned in this area: Workshops on the neurocognitive correlates of late life depression; on treatment resistant depression in older patients; and a workgroup to evaluate the feasibility of planning a consensus conference in this area.

Alzheimer's Disease and Memory Disorders

Activities planned in this area include a workship on clinical/basic neuroscience in AD, a workship on psychopharmacologic approaches to memory disorders, and a meeting panel on caregiving.

Financing of Mental Health Services

Research will be stimulated on the financing and cost-effectiveness of outpatient and inpatient care for the mentally ill elderly.

Other Initiatives

Other activities planned include continuation of activities in DSM-IV and the planning for the second major conference on mental illness in nursing homes.

CLINICAL RESEARCH RELATED TO AGING

PROJECT ABSTRACTS*

2R37MH38623-10, Peter Davies, Ph.D., Albert Einstein College of Medicine, "Aging and Dementia: Cholinergic Neuron Biochemistry", $352,864

The goal of this investigation is to provide insight into the etiology and pathogenesis of the cholinergic dysfunction of Alzheimer's disease and some other dementing disorders, and to attempt to use some of the information obtained to improve the accuracy of differential diagnosis.

During the previous project period, a number of new monoclonal antibodies were developed and used as probes for the study of pathogenesis of Alzheimer's Disease. One of these, Alz-50, appears to detect the presence of a protein, A68, which is abundant in the brains of patients with Alzheimer's but is not detectable in the normal adult brain. In this current project period, the investigators will attempt to test the hypothesis that the presence of A68 in cerebrospinal fluid predicts the presence of Alzheimer pathology in the brain. They will also conduct a comprehensive study of possible differences between both plaques and tangles in demented and non-demented elderly subjects, employing monoclonal antibodies to A68 and to other proteins. Studies will continue on the expression to A68-like immunoreactivity in the developing human CNS.

5R01MH43506-02, Gary Dean, Ph.D., University of Cincinnati, "AD Clinical Etiology: PHF cDNA Cloning", $111,707

The aims of this study are:
1. The fragmentation of purified PHF and determination of limited peptide sequence.
2. The cloning, by oligonucleotide hybridization, of cDNAs corresponding to putative PHF mRNAs.
3. Analysis of these cDNAs, including the determination of the complete DNA sequence.
4. Immunochemical proof that the encoded proteins are PHF-related.
5. Estimation of the amounts of PHF-specific proteins in normal and AD brain.

The following studies have been conducted: Paired helical filaments have been isolated from Alzheimer's diseased cortex and purified by electrophoretic separation in the presence of SDS. For the first time, it has been determined that a modified form of actin appears to be part of the PHF structure. Recently, evidence has been obtained that electrophoretically purified and SDS-solubilized PHF-derived proteins could be reconstituted in bulk into structure with the appearance of genuine PHF upon the removal of SDS. This technique should permit investigators to deduce precisely which polypeptides are true components of the PHF structure, allowing them to rationalize the choice of the 66 kDa polypeptide. The researchers are also in the process of raising monoclonal antibodies to the electrophoretically solubilized PHF proteins.

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* Dollar amounts cited in abstracts are recommended direct costs only and do not reflect amount of actual award. Total actual awards are cited in budget table on page 1 of report.

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5R01MH43965-02, Mony DeLeon, Ed.D., New York University, "Clinical Correlates of Longitudinal PET Changes in AD", $377,728

The purpose of this study is to investigate longitudinal changes in regional metabolic rates and their association with clinical deterioration and white matter diseases.

The specific hypotheses of the current longitudinal project remain unchanged from the approved proposal. They include:

1. The rate of longitudinal decline in glucose metabolism is greater for Alzheimer's patients than age matched controls.
2. In Alzheimer's disease, the temporal association cortex, which shows pronounced deficits at baseline, will continue to decline.
3. Individuals with white matter lesions, especially those with Alzheimer's disease are more likely to show change over time.

17 of the 26 longitudinal PET studies have been subject to region of interest analysis. As expected, the patients differed significantly from the controls only in Global Deterioration Scale. Furthermore, the AD patients show progressive cognitive decline over the study interval.

For the PET data, each of the regions of interest were subject to analysis of variance with diagnosis as a between subjects factor. Analysis of the difference scores showed that the AD patients significantly declined and the controls were unchanged in temporal, parietal, and frontal association cortex. Also, not all regions are equally changing over time in AD. The primary motor sensory and visual cortices showed significant changes indicating that as AD progresses, there is involvement of the primary sensory and motor projections. Areas such as cerebellum, thalamus and basal ganglia, which are preserved in AD, showed no further decline. Overall, as AD progresses, the cortical deficits become more diffuse, however the maximal decline occurs in the temporal cortex, and subcortical structures remain spared.

There is no evidence at this time that the rates of decline are different between patients with and without white matter lesions. As estimated from cross sectional work, the magnitude of the PET determined functional brain degeneration in AD is greater than the CT determined structural change.

5R01MH43240-02, Leonard Heston, M.D., University of Minnesota, "Family Studies in Dementia", $163,016

The object of this proposal is to locate and then characterize DNA sequences associated with Alzheimer's Disease or Pick's Disease or both.

During the 02 year, investigators continued to identify potential families with familial Alzheimer's disease (FAD), further define the families already ascertained, performed RFLP analysis on the current group of families using chromosome 21 probes, and performed linkage analysis to detect the likely location of FAD gene.

The complex nature of FAD diagnosis and the potential of genetic and etiologic heterogeneity has led the researchers to attempt to complete the individual pedigrees as fully as possible with respect to ages of all individuals. The presence of FAD in pedigree members has been verified by autopsy. Members of the informative families for linkage have been requested to provide blood samples. These samples are used to establish lymphoblastoid cell lines from which DNA may be extracted and genetic linkage analysis may be performed. Additional typing results in other family members and the analysis of these families using the multipoint linkage strategy are being planned and may produce information concerning the location of FAD with respect to markers (particularly pPW228c and pPW236b) or other markers.

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2R37MH39145-06, Carol Miller, M.D., University of Southern California, "Mental Illness in Alzheimer's Disease of the Aged", $238,696

The hypothesis of this proposal is that a defined spectrum of molecular changes will be detectable in AD target tissue and that the sites and degree of AD may be related to specific changes in cognition and behavior during the clinical course of the patients.

This study proposes to analyze neuronal-specific function at 3 levels: clinical, histologic, and molecular. The clinical studies will focus on the visual system, integrating the neurologic and psychometric database with specific visual function studies. A parallel histologic assessment of auditory system neuronal changes will be made. Temporal progression of neuronal loss in AD will be examined. With use of neuron-specific monoclonal probes, the architectonic differences in neuronal changes in AD will also be compared to other dementing diseases. The AD-vulnerable neurons will be further defined by: 1) immunocytochemical identification of their associated neurotransmitter and neuropeptides, 2) molecular characterization of Ag3F12, and 3) development of a neuron-enriched cDNA library. Development of this neuronal subset-specific molecular panel may contribute to the understanding of regulatory mechanisms operative in these cells in AD.

2R01MH40705-04, Andrew Leuchter, M.D., UCLA, "Mental Illness in the Elderly: Diagnostic Testing", $212,340

The two aims of this study are:
1. develop computer-analyzed electroencephalography (CEEG) more fully as a tool for the differential diagnosis of dementia
2. begin to establish links between brain functional abnormalities seen on CEEG and structural lesions seen on MRI scans.

There are six steps in this research plan.

1. New subjects will be recurited for the esicting cohort of subjects with Alzheimer's disease (DAT), multi-infarct dementia (MID), and normal control subjects (CON).
2. Subjects will be recruited for 3 additional groups: those with major depressive episode (MDE), dementia of affective disorder (DAD) and dementia of other or unknown etiologies.
3. All subjects will undergo conventional EEG studies.
4. All MRI scans will be quantitatively rated by two neuroradiologists for the severity and location of deep white matter lesions, periventricular lucencies, and atrophy.
5. Subjects will be reassessed on an annual basis.
6. Subjects will be followed to autopsy to confirm clinical diagnoses and correlate MRI lesions with neuropathological findings

1 R01 MH43326-01A1, Godfrey Pearlson, M.D., Johns Hopkins, "D2 Receptor, MRI and CT Changes in Late Onset Schizophrenia", $282,324

This study will examine the structural and dopamine D2 receptor brain changes associated with late life onset schizophrenia using MRI, CT, and PET scanning. Preliminary studies indicate that schizophrenic illnes with late life onset shows both important similarities and differences compared to more typical cases with onset in early life. Control groups will consist of elderly normal volunteers and currently elderly early life onset schizophrenics, matched for age, sex, and race with the late life onset schizophrenics. Structural brain and receptor changes will be analyzed to determine their association with clinical symptomatology, neuropsychologic abnormalities, sensory deficits, and social factors. This may aid understanding of late life onset schizophrenia, and clarify the relationship of this syndrome both to early onset cases and to the psychopathology of aging.

5R01MH40843-03, Peter Rabins, M.D., Johns Hopkins University, "Structural Brain Changes in Late Life Mental Disorder", $134,360

This project will use a newly developed CT head scan image process analysis technique to study structural correlates of late life major depression and dementia.

To date there are a total of 61 subjects enrolled in this study. The neuropsychological findings confirm previous literature on demented-depressed patients showing that they perform more poorly than age matched depressives on tests of verbal free recall memory as well as verbal recognition memory. However, they found that performance was equal in depressed cognitively normal and depressed cognitively abnormal individuals on visual recognition memory. They also report an impairment in confrontation naming in depressed demented patients. They performed as poorly as irreversibly demented Alzheimer patients in both speed and accuracy of naming. This could reflect a previously unrecognized language impairment and suggest that it is indeed a precursor to a progressive Alzheimer-type dementia. It could also reflect the nonlocalizing nature of naming. CT scan data suggest that while ventricular enlargement is present in elderly depressives, hippocampal atrophy may be persent only in AD patients.

In the next year they will further explore the common co-occurrence of depression and medical/neurologic illness in the elderly depressives. Pilot data will be analysed to determine if improvement in cognition and response to treatment for depression occurs at the same rate in the groups who have been excluded from the study because of medical co-morbidity as it does in individuals without identifiable co-morbid conditions.

5R01MH41648-03, Youngjai Kim, Ph.D., Beth Israel Medical Center, "Senile Dementia and Brain Atrophy: A Longitudinal Study", $161,866

This study concerns one of the puzzling issues observed in AD, the poor correlation between dementia and brain atrophy seen on CT scan. The researchers postulate that predictive information for the course of dementia might be buried in incongruent CT and dementia configurations.

Currently there are 37 Alzheimer's patients and 35 normal control subjects. Hippocampal volume of 14 AD and 13 control subjects has been performed. The ratings of baseline CT scans indicate the following:

1. When the four radiologists' ratings on the Overall Atrophy of each subject were averaged, 60% of AD patients had significant atrophy and 40% had relatively mild atrophy. 78% of the control subjects had no atrophy and 22% had mild-to-moderately significant atrophy. Statistical analyses are being performed to correlate the extent of baseline CT atrophy with cognitive test results.

The significance and relevance of white matter changes in Alzheimer's Disease is not clear and the investigators hope to find some clues to this issue in their longitudinal study. Preliminary data appear to indicate that while the performance of the demented subjects has deteriorated, the performance of the normal controls showed improvement. Many normal control subjects remembered the baseline test tasks and the improvement could be attributed to practice effect. Normal elderly appear to continue to learn and improve.

For the 03 year, plans are to continue data collection, publish baseline findings and preliminary longitudinal findings.

2R01MH40052-04, Walton Roth, M.D., Stanford, "Automatic Elicitation of Cognitive ERP Components", $156,669

The four aims of this project are:

1. employ auditory stimuli to explore ways of automatically eliciting N400, a component usually elicited visually by semantically incongruous words.
2. test for the best auditory stimulus frequency and stimulus duration characteristics for eliciting the automatic P300 in healthy elderly.
3. test healthy young and old subjects on both automatic and effortful versions of the P300 and MMN paradigms, as well as the auditory N400 paradigm to assess cognitive changes associated with normal aging
4. test Alzheimer's patients on the same paradigms to determine whether effortfully or automatically elicited ERP components best delineate cognitive deficits in the patient group.

Event Response Potentials (ERPs) have been invaluable in delineating the timing and amount of specific aspects of information processing in cooperative and cognitively intact subjects, but they have been less helpful in the assessment of patients unable or unwilling to cooperate with testing procedures. The researchers propose to continue developing paradigms for eliciting cognitive event related potential components automatically, and applying them along with conventional task-related paradigms to assess cognitive changes associated with aging and dementia.

5R01MH37869-07, Charles Reynolds, M.D., Western Psychiatric Institute and Clinic, "EEG Sleep, Aging, and Mental Illness", $316,465

This is a study of the development of objective indicators of diagnosis, treatment response, and prognosis, based on measures of nocturnal EEG sleep parameters in healthy elderly controls, major depressives, Alzheimer's patients, and mixed symptom patients.

During this past year preliminary analyses has been done of the rapid eye movement (REM) sleep deprivation experiment which suggest that elderly depressed patients show more rapid phasic REM activity accumulation than controls and demented, as well as more fixed intranight REM sleep temporal distribution. By contrast, healthy controls evidence more plasticity of REM sleep activity generation. Demented patients show the lowest rate of REM activity generation. Recovery from REM sleep deprivation appears to have a differential impact on slow wave sleep counts: decreasing in controls, increasing in depressives, and staying the same in demented subjects.

During the coming year an experiment will be done to test the cholinerigic supersensitivity hypothesis in mixed-symptom (pseudo-demented vs. depressed demented) patients. The investigators will complete enrollment of mixed-symptom patients (i.e., those with both depression and cognitive impairment) into the REM Sleep Deprivation study. This will include projects on Psychobiology of Vulnerability to Recurrence in Late-Life Depression; Psychobiology of Bereavement-related Depression in Late Life; Longterm Evolution of EEG Sleep and Sleep Quality in Healthy 60-90 Year Olds.

5R01MH43261-02, George Zubenko, M.D., Western Psychiatric Institute and Clinic, "Biological Marker for Primary Dementia in the Elderly", $250,768

This proposal describes an interrelated series of clinical and preclinical investigations of a biological marker, membrane fluidity, in the study of primary degenerative dementia.

The following studies were conducted during the past budget year:

1). Electroencephalographic correlates of increased platelet membrane fluidity in Alzheimer's disease. EEGs from 49 moderate-severely demented patients with probable Alzheimer's were subjected to visual and computerized spectral analysis: Only 14.3% of the cases in the subgroup with increased platelet membrane fluidity exhibited focal EEG abnormalities while 42.9% of the residual subgroup exhibited focal EEG findings
2). Cognitive function and platelet membrane fluidity in Alzheimer's disease increased platelet membrane fluidity identifies a clinically-distinct subgroup of 50% of patients meeting criteria for Alzheimer's. This study compared the cognitive impairments of patients in this subgroup to those observed in the residual subgroup of patients with Alzheimer's who had normal platelet membrane fluidity. No significant differences in the number or distribution of deficits in 6 cognitive domains were observed.
3). Longitudinal study of platelet membrane fluidity in Alzheimer's disease. Increased platelet membrane fluidity identifies a prominent subgroup of patients with Alzheimer's who exhibit distinct clinical features. In this longitudinal study, the stability of platelet membrane fluidity was demonstrated.
4). Familial risk of dementia associated with a biologic subtype of Alzheimer's disease. Relatives of patients with Alzheimer's showed a 50% risk of dementia regardless of the platelet membrane phenotype of the respective proband. Relatives of patients with increased platelet membrane fluidity who developed dementia exhibited symptoms significantly earlier than relatives of patients with normal platelet membrane fluidity.
5). Monozygotic twins concordant for probable Alzheimer's disease. This study was consistent with published data suggesting that increased platelet membrane fluidity is associated with a clinically distinct subtype of Alzheimer's disease and this platelet membrane characteristic may be genetically determined.
6). Platelet membrane fluidity and treatment response in cognitively-impaired, depressed elderly. These were patients treated with nortriptyline. Those who exhibited worsening of their cognitive impairment exhibited "increased" platelet membrane fluidity.
7). S-Adenosyl-L-methionine in the treatment of Alzheimer's disease. Results imply that while SAMe may be useful for other conditions associated with altered membrane fluidity, such as normal aging, changing membrane fluidity per se is not likely to lead to marked changes in symptoms in AD.

1 R01 MH42819-01A1, George Alexopoulos, M.D., Cornell, "Longitudinal Study of Late Life Depression", $200,406

This is a five-year longitudinal project which will study the clinical presentation, outcomes, and predictors of outcomes of geriatric depression with a focus on the effect of age of illness onset. Preliminary data suggest that clinical, biological and family history differences exist between LLD (depression that first occurs in late life) and ELD (depression that first occurs in early life). Specifically, it is hypothesized that:

1. more LLD subjects have delusions, medical morbidity, and/or cognitive dysfunction during episodes.
2. LLD subjects have poorer outcome, including more relapses, dementia, and medical morbidity.
3. LLD subjects have different demographic, clinical, and psychosocial predictors of specific outcomes.

The study is expected to yield information that clinicians can use to: 1) determine prognosis of geriatric depression; 2) assess risk-benefit ratio of therapeutic or preventive interventions; 3) identify periods of highest risk for adverse outcomes and plan treatment accordingly.

5R01MH38801-06, R. Thornton Sargent, UC-Berkeley, "PET Brain Blood Flow and Metabolism in Alzheimer's", $196,029

The aim of this proposal is to study regional cerebral blood flow (rCBF) in Alzheimer's dementia and to relate rCBF to regional cerebral metabolic rate for glucose (rCMR) with positron emission tomography (PET).

This study has previously validated the use of I-HIPDM as an extracted flow tracer for rCBF with PET. Comparisons of the regional reactivity to CO show that all regions except thalamus had significant increases in blood flow following CO inhalation. This regional difference has not been previously reported. In normal subjects, the researchers found no decrease in blood flow per se with advancing age, in any brain region. However, when the CO reactivity was examined, it was found that increasing age resulted in a diminished CO reactivity in cortex. The sample size is still too small to draw conclusions based on statistics, but at this point the vascular reactivity seems to be comparable to that seen in controls. These results indicate that patients with AD retain the ability to increase cerebral blood flow in response to CO even in those regions most severlely affected by the disease.

In the next year, subjects will be increased to include enough AD patients to be studied for cerebrovascular reactivity .

5 R01 MH40827-05, Kathryn Bayles, Ph.D., Univ. of Arizona, "Communication Disorders in DAT: Longitudinal Perspective", $192,262

The overall goal of this project continues to be the comprehensive and longitudinal investigation of the effects of Alzheimer's disease (AD) on communicative function in relation to the following variables: (a) age at disease onset; (b) presence of extrapyramidal symptomatology; (c) family history of AD; (d) rate of disease progression; and (e) dementia severity.

The following substudies were conducted during the past, 04, year:

1. Performance of mildly and moderately demented subjects on a linguistic communication battery: task or concept effect.
2. Analysis of the effect of age-at-onset on linguisitc communication performance (LCP).
3. Confronting naming in AD: Evidence of subgroups.
4. Relation of object naming to categorical knowledge.
5. Confrontation naming to picture and objects in relation to auditory comprehension.
6. Performance of advanced AD subjects on linguistic communication tasks: Task or concept effect.
7. Caregiver perceptions of communication deficits of AD patients.

In the last, 05, year of this grant, the investigators will continue the above substudies. The paradigm used in this study permits the investigation of possible dissociations among communicative abilities as a result of AD and enables the investigators to study the integrity of the structure and processes of declarative memory systems.

1R01MH43872-01, Kathryn Bayles, Ph.D., University of Arizona, "Communication and Neuropsychiatric Status in Dementia", $231,889

The purposes of this project are: (1) to compare patterns of impairment in language and communicative functions, psychiatric, and neurologic status in Parkinson's disease (PD) and Alzheimer's disease (AD); (2) to describe the progression of change in language and communicative functions, psychiatric, and neurologic status during the course of PD and AD; and (3) to determine the relation of onset and duration of symptoms and depression in PD and AD to the nature of language and communication deficits. The investigators have chosen to approach the study of the effects of PD and AD on language and communicative function as an investigation of semantic, episodic, and procedural memory because deficits in the different communicative functions are reducible to deficits in these more generic systems.

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5R01MH42103-02, Nathan Billig, M.D., Georgetown University, "Mental Health Changes after Surgery in the Elderly", $216,253

The purpose of this study is to assess the extent to which cognitive impairment and/or depression are precipitated or exacerbated bv surgery in the elderly. Specifically, the research aims of the project for the coming year are as originally proposed:

A. to assess the prevalence of peri-operative cognitive impairment and depression in a sample of patients aged 60 and over, undergoing elective surgery.
B. to assess whether hospitalization and surgery serve as precipitating factors for cognitive impairment and depression in the elderly.
C. to define cognitive impairment in the peri-operative period as to its clinical correlates, including medication use, the nature of the surgical procedure, anesthesia, etc.
D. to estimate the extent to which elective surgery affects recovery of pre-morbid functioning over a period of a year following surgery.

In the first year, procedures for gaining access to the lists of patients scheduled for surgery were negotiated, and the complex network of surgeons, their staffs, patients and the research staff worked together well. A computerized database was developed for patients scheduled for surgery during the course of this study. All study subjects are receiving structured face-to-face interviews, using a questionnaire to obtain historical and demographic data. Interview and medical record data are being coded and entered into a database for analysis. A preliminary analysis of the results of the Mini-Mental State scores shows that overall the sample is remarkably cognitively intact. The immediate post-operative test results indicate no significant changes except for the oldest age group. No cases of major depression have been identified to date. The sample pool will be enlarged and an increased number of surgical procedures will be performed in future vears.

2R01MH24433-13, Suzanne Corkin, Ph.D., Massachusetts Institute of Technology, "Behavioral Effects of Brain Injury", $352,330

The overall goal of the proposed research is to investigate brain mechanisms underlying normal human perception, cognition, and action. The approach is to study patterns of sparing and loss of function in patients with selected cerebral lesions.

This is a continuation study. In the longitudinal study preceeding, veterans with penetrating head injuries received in World war II declined more in cognition from the 1950s to the 1980s than control veterans with peripheral nerve injuries. The researchers are now proposing to examine some implications of this decline.

First they will determine the generality of the effects of head injuries on behavior by continuing the longitudinal study of 203 surviving veterans of the Korean Conflict. Retesting the Korean Conflict veterans will permit them to determine a) whether penetrating head injuries increased cognitive decline in that sample relative to uninjured control subjects, b) whether penetrating and closed head injuries increased cognitive decline equally and c) which of a variety of cognitive, sensory, sensorimotor, and psychiatric measures showed precipitous decline following head injury.

The second question concerns the pathophysiology of precipitous decline. Morphometric analyses of magnetic resonance images will determine the volumes of lesions and of selected brain structures and a series of cognitive, sensory, and motor tests and psychiatric instruments will assess behavioral functions. Researchers believe that two degenerative processes contribute to decline, and that morphometric analysis is sensitive to the effect of both (a) transneuronal degeneration consequent to the original injury that compromises new brain regions, and (b) brain atrophy due to aging that impairs the ability of regions spared by the original injury to compensate for damaged tissue.

The third question integrates the labs' long-standing interests in the behavioral effects of brain injury and of Alzheimer's disease.

5R37MH43693-02, Dilip Jeste, M.D., UCSD, "Late-onset Schizophrenia: A Neuropsychiatric Study", $184,472

This is a study of schizophrenia with onset after age 45. The researchers postulate that this illness in this age group is a heterogeneous entity with diffferent subtypes, some of which may be identifiable with certain clinical, neuropsychological and brain morphological evaluations and may be associated with differences in neuroleptic response.

In the 02 year 28 patients with a probable diagnosis of late-onset schizophrenia were evaluated. Assessments included psychiatric exam, quantitative neurological exam, neuropsychological testing, and MRI or CT scans. Patients had to meet DSM-III-R criteria for late-onset schizophrenia, as determined independently by at least three physicians. The results to date are:

1. Clinical - late-onset schizophrenia was predominantly of paranoid type.
2. Neuropsychological - patients performed similar to controls on tests of general cognitive abilities but significantly worse on tests of abstraction, concept formation or problem solving.
3. MRI - a majority of patients had abnormalities such as increased signal intensity. All scans were ranked separately on two parameters: ventricular enlargement and signal hyperintensity.

The three groups were not perfectly matched, but a tentative impression about the results is that it seemed the late-onset schizophrenic patients tended to be slightly more abnormal than normal controls in terms of ventricular enlargement and signal hyperintensity, while the Alzheimer's patients appeared to be much more abnormal than either group on both parameters.

The work so far suggests that late-onset schizophrenia is, in all likelihood, a valid diagnostic entity. Researchers are continuing to follow late-onset schizophrenic and other psychotic patients, as well as normal controls.

1R01MH45048-01, Marian Goldstein, M.D., SUNY-Buffalo, "Neuropsychiatric Disorders in Elderly Undergoing Surgery", $197,482

This is a 36 month empirical investigation into the relationship between geriatric surgery and neuropsychiatric decline. The effects of 3 types of elective surgery, all performed under general anesthesia, will be studied: 1) TJR - total joint replacement; 2) cholecystectomy and 3) inguinal hernia repair. Subjets will range from 55 to 75 years old. A preoperative psychosocial history, and a battery of 7 standardized measuring instruments will be administered, covering cognitive, affective and functional-behavior aspects of patient behavior.

The research design will be a multiple time series design, in which the dependent variable measures will be administered three times. The design will test 5 major research hypothes pertaining to the incidence of post-surgical decline in older patients, its moderation by sex, age and type of surgery and its relationship to post-operative delirium.

1 R29 MH44697-01, Alan Kluger, Ph.D., NYU, "Motor Deficit and White Matter Lesions in Aging", $106,172

This is a study to examine possible relationships among motoric dysfunction, presence of periventricular white matter lesions (PWML), and cognitive function in the elderly. The presence of PWML on CT/MRI has been recently associated with subclinical motor deficits in cognitively normal elderly subjects and with an increased prevalence of motor dysfunction and gait abnormalities in patients with Alzheimer's disease.

This study will test the motor function of 60 cognitively normal and 60 mildly cognitively impaired elderly subjects by using a variety of neuropsychological and computerized tests of motor/psychomotor performance. Results from this investigation are expected to contribute to basic knowledge about brain-behavior relationships in aging and dementia.

1 R03 MH45054-01A1, Joan McDowd, University of Southern California, "Differential Rates of Aging of the Cerebral Hemispheres", $29,922

This is a Small Grant looking at differences in aging rates of the right cerebral hemisphere and the left, as evidenced by a performance decrement on tasks assessing functions specialized to the right hemisphere, which has not been seen for tasks assessing functions specialized to the left hemisphere. The purpose of this proposal is to investigate right hemiaging with divided attention/dual task methods. Single and dual tasks will be performed by both younger and older subjects.
If, as previously suggested, the right hemisphere does show an age-related decline, manipulospatial activities such as driving and certain occupations which require intact spatial abilities may be negatively affected.

1 R03 MH44433-01, Arthur Kramer, Univ. of Illinois, "Aging & the Development of Automatic Processing", $37,757

This Small Grant will focus on the investigation of age-related changes in human information processing. Specifically, investigators are interested in how these age-related changes impact the acquisition of new skills and how information processing strategies might be used to reduce decrements in the rate of learning and asymptotic level of performance that are observed with older individuals. This hypothesis is that the conservative response bias observed in the elderly inhibits the acquisition of new cognitive skills and that this deficit may be reduced or eliminated through manipulations which affect response strategies. In addition to contributions to theories of skill acquisition and aging, researchers believe the the research has important practical implications for the development of training strategies that are well suited to older individuals.

5R01MH41930-03, Robert Marin, M.D., Western Psychiatric Institute and Clinic, "Apathy in Late Life Mental Disorders", $72,151

The overall objective of this project is to document and explore the heuristic value of the concept of apathy for the clinical management and investigation of late life mental disorders.

One major hpothesis of this study is that levels of apathy will be significantly higher in right hemisphere stroke (RH), probable Alzheimer's disease (AD) and depression than in normals (NL) and left hemisphere stroke (LH). The comparison of apathy and depression is of particular importance in this study because of the overlap of these two dimensions of behavior in depressive disorders and the fact that the Apathy Evaluation Scale (AES) includes items which are intended to be sensitive to depression. The ability to discriminate the dimensions of apathy and depression in a sample that includes subjects with depressive disorders would provide particularly strong evidence for the construct validity of the AES. The overall pattern of convergent and discriminant validity correlations provides substantial evidence for the construct validity of the AES and supports the project thesis that apathy is indeed a valid dimension of behavior which is discriminable from depression.

In the final year of the project the investigators will continue testing subjects and data analysis will continue. Pilot data pertinent to the development of further research will be evaluated as well. The researchers have recently obtained CT scans on almost all stroke subjects tested to date. They plan to correlate infarct size and location with measures of apathy.

5R01MH43435-02, Leonard Poon, Ph.D., University of Georgia, "Adaptation and Mental Health of the Oldest Old", $223,409

This research will examine the processes involved in the successful adaptation of cognitively intact, community-dwelling octagenerians and centarians. The major interest is in the nature of the mental health, coping, adaptational skills, and environmental support that are necessary to survive successfully in the different stages of late adulthood.

Currently eight individuals have participated in this study. Although too small to yield any significant results, a trend is visible for age differences in family longevity, number of life events experienced and religiosity. The centarians reported fewer overall critical stresses over their life-span. Their score on ritualistic religiosity was also lower than the one for the other age groups.

In the next year, 100 subjects from 3 age cohorts will be tested. Investigators also hope to do data coding and begin to debrief subjects tested so far.

The research continues to examine the processes involved in the successful adaptation of cognitively intact, community dwelling octagenerians and centarians. Four hypothetical models are being designed within a defined general model of factors contributing to life satisfaction, adaptation, and health of the oldest old. First relates a number of adaptational or survival skills; second describes the patterns of physical and mental health among cognitively intact 60, 80 and 100 year olds and the influence of health on life satisfaction, cognitive skills, and the level of environmental support; third relates the patterns of activities, time use, and environmental support as indicators of life satisfaction and mental health; fourth links individual characteristics as predictors of life satisfaction and mental and physical health.

5 R29 MH43856-02, Barnett Meyers, M.D., N.Y. Hosp.- Cornell, "Geriatric Major Depression and Delusions", $104,070

This is a study of disturbances of hypothalmic-pituitary-adrenocortical function in elderly depressives. It will be testing the theory that hypercortisolemia resulting from the depressed state interacts with a trait for an excessive dopaminergic response to steroid stimulation in the pathogenesis of mood-congruent delusional depression.

This grant on geriatric major depression and delusions completed its first year in April with the following initial results:

1. subjects with pretreatment DST (Dexamethasome Suppression Test) nonsuppresion achieved normal responses with recovery; subjects with pretreatment suppression continued to have this response; these data suggest that DST nonsuppression is depressed-state specific in the physically well elderly.
2. The preliminary finding that mood congruent delusional subjects achieved the highest post DST plasma cortisol levels is compatible with a principal study hypothesis.

The subjects will continue to be studied during the 02 year. Clinical and neurobiologic assessments will be made and post-treatment studies will be done on several subjects.

1 R03 MH43549-01A1, Alan Stoudemire, M.D., Emory Univ., "Cognitive Dysfunction in Geriatric Depression", $37,985

This Small Grant will be examining the outcome of elderly depressives with or without signs of concurrent cognitive dysfunction after treatment with tricyclic antidepressants or electroconvulsive therapy. Analyses will be performed to a) measure the effects of TCA/ECT treatment on cognitive functioning in the elderly depressed patient; b) evaluate the outcome of depressed patients with and without concurrent cognitive dysfunction after treatment of depression, c) to assess if neuropsychological markers can be useful in predicting treatment response in this population.

5R01MH43390-02, Ramon Valle, Ph.D., San Diego State University, "Hispanic Elderly Cognitive Screen Validation Study", $192,820

This is a study to evaluate the Spanish language version of two commonly used cognitive screens: the Folstein Mini Mental Status Exam and the Blessed (et.al. 1968) Mental Status Exam with Spanish Speaking Mexican heritage Hispanic elderly age sixty plus.

The goal of the study is to follow the physical and mental health of 600 men from adolescence until late middle life. The purpose is to follow 2 large cohorts of men prospectively until retirement and until a significant amount of chronic illness occurs. To be determined are what familial, childhood, and early adult psychological variables predict physical morbidity, early retirement and psychopathology of late midlife; what is the natural history of marital and occupational careers over the male lifespan and how do these careers affect late-life psychopathology and deterioration of physical health?

5R01MH42316-03, Jared Tinklenberg, M.D., Stanford, "Cognitive Functioning in Early Alzheimer's", $115,567

The objectives of this research program are to improve methods for the early diagnosis of probably Alzheimer's disease and to develop assessment procedures that permit quantification of disease severity, especially in the early stages.

During this past year two studies have been conducted:

1. Longitudinal study of cognitive functioning in unimpaired elderly with subjective memory decline. This study involves annual evaluations of 60 to 80-year-old individuals who have complaints of memory decline, but no evidence of dementia. They have demographic characteristics comparable to a concurrent sample of 100 patients who have a clinical diagnosis of probable Alzheimer's disease and are being followed in a parallel, separate project. One major objective of this study is the development of improved psychometric procedures for detecting early Alzheimer's disease. The second objective of the study is assessing the long-term clinical outcome of elderly individuals who have memory complaints. The majority of the patients have remained remarkably stable clinically and psychometrically.

2. Automatic and intentional processing in Alzheimer's disease. This study's objective is to compare intentional and automatic information retrieval in patients having a clinical diagnosis of probable Alzheimer's disease. The hypothesis is that mild to moderately impaired individuals will be relatively unimpaired on measures of automatic activation in comparison to demographically matched unimpaired control subjects.

5R37MH33688-10, Patricia Prinz, Ph.D., University of Washington, "Biomarkers for Early Expression of Alzheimer's Disease", $300,180

This study proposes to test the ability of biomarkers to predict for AD-like decline in a sample of 300 individuals "at risk" for AD.

During the past year, the investigators have refined and improved their analysis techniques using EEGs from a previous population of diagnosed Alzheimer's patients. They have incorporated corrections for artifacts and optimized statistical estimation procedures. The technology that they are developing is of significance in that it expands the diagnostic usefulness of EEG beyond current clinical EEG approaches, with an improvement in ability to detect minimal neuronal degeneration, such as that in Alzheimer's disease. The researchers are applying this refined analysis to 70 "at risk" subjects. The prediction is that their EEG technology will discriminate between subjects who do and do not later develop Alzheimer's disease.

During the 10 year the objectives and aims of this project will remain unchanged. Aim 1 is to refine computer based methods for extracting diagnostic information from the all night sleep EEG. Previous work developed an analysis technique that could be used to discriminate early Alzheimer's patients from major depressive disorder patients and controls at an 85% accuracy rate. Aim 2 is to test the computerized EEG analysis system in predicting an Alzheimer's outcome in a large "at risk" population not diagnosable as Alzheimer's disease.

5R01MH42522-02, Robert Young, M.D., Cornell, "Geriatric Mania", $94,223

This is a study of the clinical presentation, outcomes, and predictors of outcomes in elderly patients with bipolar disorder, manic phase.

In the last year the investigators have continued to examine brain morphology in geriatric mania by computerized tomography (CT). The sample of manic patients previously studied was expanded. CT scans were compared in 23 hospitalized manic patients, and eleven control subjects without history of psychiatric disorder. Patients had greater frequency of global cortical sulcal widening. They also had higher ratios of third ventricle width to brain width. In an analysis of the relationship between age and manic psychopathology there were low negative correlations between age and pretreatment scores on some items of the Mania Rating Scale. There were also low negative correlations between age and residual MRS scores, and changes in scores, after two weeks of pharmacotherapy.

In related studies, Dr. Young and others have found a statistically significant association between treatment with antidepressants in association with the index manic eipsode and age at first onset of mania. Also, patients who had had the DSM III diagnosis of organic affective syndrome, manic, were, when compared to a group with bipolar disorder, manic, noted to be significantly older. The most prevalent factors most frequently implicated as etiologic were corticosteroid treatment, thyroid disease, and sympathomimetic abuse.

The goals for the current year are as originally proposed. Investigators will continue to evaluate magnetic resonance imaging techniques in addition to computerized tomographic imaging.

5R37MH42248-03, George Vaillant, M.D., Dartmouth, "Life Course, Mental Health, and Later Development", $135,445

This study of adult development proposes to follow the physical and mental health of roughly 600 men from adolescence (1940) until late middle life, age 58-70 years (1990). The purpose is to follow two large cohorts of men prospectively until retirement and until a significant amount of chronic illnesss occurs.

In the past year two studies were completed on the College sample. As in the Core-city sample, the researchers found an identical pattern of the synergistic effects of alcohol abuse and smoking abuse on premature mortality. The second study was of the effect of ancestral longevity among the College sample's parents and grandparents upon the subjects mental and physical health. This is one of the few studies that has followed a sample of subjects long enough to obtain accurate dates of death for their parents and grandparents and, at the same time, to have multivariate prospectively gathered data on competing risk factors for the subjects themselves. Age at death of the oldest relative on the maternal and paternal side proved the most powerful means of correlating ancestral longevity with the men's health at age 60.

In this current year of the grant, questionnaires will be sent to all members of the College study. This is the ninth wave of biennial follow-up questionnaires. Work will continue on analyzing data and writing up the findings from a recent follow-up of women from the Terman Study. Also to be examined will be the recollection by the men in the College sample of their World War II combat experiences.

1R01MH45087-01, Scott Campbell, Ph.D., Institute for Circadian Physiology, "Bright Light Treatment of Sleep Disturbance in the Elderly", $182,591

This proposed two-phase project will study light exposure in relation to sleep disturbance in 40 elderly subjects. In Phase 1, baseline levels of light exposure will be correlated with physical activity and with subjective assessments and objective measures of sleep disturbance. In Phase 2 researchers will evaluate the short term effects of timed bright light exposure on the disturbed sleep patterns of these subjects.

As much as 40% of the population over 65 years of age suffers problematic use of hypnotic medications, reduced quality of life, and increased morbidity and mortality. The primary features of sleep disturbance in the elderly are fragmented noctural sleep, early morning awakenings and increased daytime sleepiness. This appears to reflect changes in the circadian timing system. Studies have shown that timed exposure to bright light may be effective in shifting the phase of circadian rhythms, as well as increasing the amplitudies of the rhythms.

This research will be the first to record chronobiological variables in sleep disturbed elderly subjects in a natural setting, thus providing valuable etiologic data on this group.

1R29MH44176-01, Devangere Devanand, M.D., Columbia University, "Haloperidol Treatment in Alzheimer's Disease", $97,334

The efficacy and side effects of low dose (0.5 to 0.75 mg. daily) versus traditional dose (2 to 3 mg daily) oral haloperidol treatment of psychosis and behavioral disturbance will be evaluated in a random assignment double-blind placebo controlled study of outpatients with probable Alzheimer's disease. In addition to standardized rating scales and the tracking of target symptoms, specific strategies will be used to overcome difficulties in following symptom profiles in demented outpatients. The side effects associated with these 3 treatment conditions (low dose, traditional dose and placebo) will be assessed in 3 areas: somatic side effects, activities of daily living, and level of cognitive functioning, the latter examined with detailed neuropsychological evaluation.

There is a high prevalence of psychosis and behavioral disturbance in AD, and a large number of these patients are treated with neuroleptics. Given the inadequate data on the efficacy and side effects of neuroleptic treatment in this disorder, this study will help determine the risk/benefit ratio of different dosage conditions of haloperidol in the treatment of psychosis and behavioral disturbance in AD.

5R01MH35196-08, Anastase Georgotas, M.D., New York University, "MAOI vs. TCAs in the Treatment of Geriatric Depression", $170,027

This grant began its eighth year on April 1, 1989. The goals of the project are to assess the comparative efficacy and safety of nortriptyline and phenelzine in comparison with placebo, to investigate the use of these drugs for maintenance, and to determine prognostic factors associated with optimal antidepressant efficacy and safety. Sample size was increased to enable the investigators to extend their preliminary finding Also, the addition of lithium to NT or phenelzine in refractory depressed patients was studied.

In the next year, the researchers plan to complete data entering and statistical analyses, initiate a double-blind study for depressed elderly patients, continue and complete longitudinal follow-up studies, and re-evaluate all patients who have dropped out following the acute phase.

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5R01MH42216-03, Steven Ferris, Ph.D., New York University, "AD Caregiver Wellbeing, Counseling, and Institutionalization", $232,868

The objectives of this continuing study remain the same for this coming year - to evaluate the effectiveness of a multicomponent treatment approach whose primary goal is to optimize the condition of the caregiver, and whose secondary goal is to prevent or postpone institutionalization of the patient. Specific aims are to complete a case control study in which spouse caregivers of AD patients receive all aspects of the counseling program and a parallel control group of spouse caregivers who are followed but not treated, and to administer a caregiver assessment battery to the treatment and control groups at baseline, after 4, 8, and 12 months and every 6 months thereafter, and to evaluate the effectiveness of counseling for improving caregiver well-being, to determine the longitudinal outcome, and to assess the influence of treatment and caregiver attributes on ultimate institutionalization.

The first follow-up evaluations from this study show that even when the patient has deteriorated from-baseline. the caregivers in treatment have improved overall scores on the mental health indicators. In contrast, control cargivers' scores have deteriorated. Caregivers in treatment have indicated better communication among family members and more cooperation. At the end of the first segment of treatment, each caregiver in the treatment group was asked to complete an evaluation form, indicating his or her reactions to the effectiveness of individual and family counseling. Initial results suggest that the caregivers' subjective response to the program has been extremely positive. The ultimate goal of the treatment is to prevent or postpone institutionalization. Results suggest that the treatment is effective in achieving that goal.

Given the greater cost-effectiveness of home care compared to institutionalization, the widespread use of similar programs would potentially have a major impact on the economic burden of AD on individual families.

During the 3rd year of the study the investigators will complete the entry of the total subject sample. An interim data analysis will be conducted to ascertain the short-term effectiveness of the treatment strategy.

1R01MH45131-01, Dilip Jeste, M.D., UCSD, "Risk Factors for TD in Older Patients", $264,764

Neuroleptic-induced tardive dyskinesia (TD) is a serious problem for chronically mentally ill older patients. There have been few prospective, long-term studies of the incidence of and risk factors for TD in this population. This study will evaluate, over a five year period, 700 psychiarric patients over age 50. Patients will undergo initial psychiatric and neurologic exams. They will be assigned randomly to either haloperidol or thioridazine.

The main goals of the study are:

1) to estimate the incidence of TD in this older patient population

2. to determine the risk factors for occurrence and precipitation of TD,

3. to determine the risk factors for persistence and severity of TD.

The strengths of the proposed work are: a large sample size, use of a neuropsychologic test battery, instrumental assessment of orofacial/limb motor function, a comparison of relative risk of TD with two most commonly used neuroleptics, and a neuropathologic study of the brains of TD patients.

1R01MH44194-01, Nunzio Pomara, M.D., Nathan Kline Institute, "Nortriptyline Effects on Elderly Depressed", $134,130

The effects of tricyclic antidepressants on psychomotor and cognitive functioning are of considerable practical significance particularly in the elderly. Up to 30% of geriatric patients treated with tricyclics develop confusion or delirium. There are no well controlled studies assessing the effects of therapeutic blood levels of a tricyclic on performance in the elderly. This will be a placebo controlled, double-blind, parallel group design, comparing single doses as well as chronic NT treatment. Goals are to

1. establish performance effects of a single dose of NT
2. establish performance effects of chronic treatment
3. establish whether there is an age-related sensitivity to these effects
4. examine the relationship between plasma concentrations of NT and the magnitude of NT's effects on performance.
5. determine if NT is equally efficacious as an antidepressant in young and old.

5R01MH41489-04, Ira Katz, M.D., Ph.D., Medical College of Pennsylvania, "Drug Treatment of Depression in Institutionalized Aged", $55,191

This study will investigate the significance of affective and neurovegatative symptoms and will evaluate the risks versus the benefits of the use of tricyclic antidepressants in frail elderly patients living within an institutional setting.

Progress of the study and tentative conclusions are:

Of the 30 double-blind patients, 18 were assigned to drug and 12 to placebo. 6 of the 18 drug treated patients but only 1 of the 12 placebo treated patients exhibited significant adverse effects requiring early termination. Among completers, there was a highly significant difference between drug and placebo in psychiatrist ratings of global improvement. 10 of the 12 drug-treated subjects exhibited some degree of improvement compared to only 2 of 11 pacebo treated patients. 7 of the 12 drug treated patients exhibited either "much" or "very much" improvement compared to only 1 of 11 placebo patients. Therefore, nortriptiline remains an effective treatment for DSMIII Major Depression, even in the institutional aged. There is however, no effect of drug on measures of self care activities of daily living. Thus, though drug can decrease depressive symptoms, it does not appear to reduce disability in this setting. The within subject effect was highly significant, confirming the decreased improvement among the more disabled patients. The within subject effects were not significant, confirming the finding that improvement of depression does not translate into reduced disability in this setting. Finally, increased disability appears to predict decreased benefit from nortriptyline but not increased risk.

1R37 MH43832-01, Charles Reynolds, M.D., Western Psychiatric Institute and Clinic, "Maintenance Therapies in Late Life Depression", $637,988

Only approximately 1/3 of patients have a good outcome over 1-3 year followup intervals when studying late life depression. This depression leads to impairment in social adjustment, intercurrent medical disorders, and erosion in the ability to care for self. Controlled studies of maintenance therapies with respect to effectiveness in preventing recurrences are necessary.

Both Interpersonal Psychotherapy (IP) and nortriptyline (NT) have now been shown in controlled trials to be effective and safe in the acute treatment of late life depression. The major objectives of the study are to determine if recurrence rates differ among maintenance treatments, if time to recurrence differs, and if social adjustment is enhanced among patients in the active treatment cells. Also to be explored are the effects of potential mediating variables on longitudinal course (e.g., number of prior episodes, measures of social support, life events and intercurrent medical illness.

5 R29 MH43266-02, Linda Teri, Ph.D., Univ. of Washington, "Treatment of Depression in Alzheimer's Patients", $128,940

This is a controlled trial of behavioral treatment of depression in DAT. It intends to train caregivers in skills to alleviate the patient's depression.

This grant began its second year in August. Consistent with the original design, all patients met DSM3R criteria for Primary Degenerative Dementia and met Research Diagnostic Criteria for either Major or Minor Depressive Disorder. Duration of cognitive deficits averaged 18 months. All caregivers were spouses, living with the patient. Their mean age was 61. Two new measures were developed for use in this study: the Pleasant Events Schedule-AD and the Memory and Behavior Problem Checklist-Revised. Preliminary investigations with the MBPC-R indicate that the subscale of depression items differentiated between DSMIIIR diagnosed depressed and non-depressed AD patients, and that depressive behaviors were more distressing to caregivers than other problem behaviors. In another study investigating the relationship of patient depression to other problems, significant associations were found between MBPC-R depressive and disruptive behaviors with caregiver depression and burden.

This study is now in its second year, and it will remain for the treatment outcome data to determine the degree to which a successful treatment program for depression in AD patients can remediate depression and depression-associated problems, such as disruptive patient behaviors, and caregiver burden and depression.

2R01MH41734-02, Barbara Stanley, Ph.D., City University of New York, "Informed Consent in Aged Psychiatric Patients", $155,207

This grant will examine how proxies who consent to psychiatric treatment or research on behalf of an elderly family member make their decisions. As the lifespan increases, the elderly can be more prone to the development of serious illnesses, some of which (e.g. Alzheimer's disease) affect cognitive functions and consequently may impair the ability to make competent treatment decisions (i.e. give a competent informed consent). This project is the first large scale empirical study designed to examine proxy consent in psychiatric treatment and research. A workable model of proxy consent must be developed in order to make treatment decisions for incompetent elderly and conduct research on psychiatric conditions which result in a loss of functional competency.

Two studies are proposed in this project: one in which proxy decision-making for elderly people is examined using hypothetical treatment and research projects, and a second in which elderly patients about to undergo actual psychiatric treatment or research and their family members are evaluated to determine when proxies are used and how they reach decisions.

5R01MH37196-08, Larry Thompson, Ph.D., VAMC-Palo Alto, "Psychotherapy for Depression in the Elderly", $81,049

This study is comparing the effectiveness of pharmacotherapy, psychotherapy and the two combined in the treatment of depression in elderly outpatients. Preliminary results suggest that psychosocial treatments have about the same general effectiveness that one would expect from drug treatment in patients for whom physical health makes antidepressant treatment feasible. Phase 1 is the clinical trial and phase 2 is designed to test maintenance strategies.

Of the 72 persons completing phase 1 , 21 were men and 51 were women. There are no significant differences across conditions on age, education, or initial Folstein, BDI or HAMD scores. Pre and post scores by condition and status (completer or drop) on 2 critical dependent variables: BDI and HAMD reveal no significant pre to post change. In contrast completers show significant change across time on both measures.

5R01MH40726-02, Robert Young, M.D., Cornell, "Response to Nortriptyline in Elderly Depressives", $82,874

This is a study of the interindividual differences in the pharmacokinetics of antidepressant drugs. Researchers are studying to what extent accounting for these differences explains interindividual differences in therapeutic efficacy, neurochemical effects, and toxicity. Nortriptyline will be used as a model drug in this elderly group of inpatients with primary unipolar major depressive illness, endogenous subtype.

The 01 year data includes findings concerning plasma concentrations of the major metabolite of nortriptyline. A negative relationship between E isomer concentrations and therapeutic response was noted. Also, a preliminary analysis on CT scan images of depressed patients treated with nortriptyline showed that the ratio of lateral ventricle to brain size reflects "atrophy" and that this ratio was higher in patients who did not respond well to treatment.

5R01MH35182-06, Jerome Yesavage, M.D., Stanford, "Memory and Mental Health in Aging", $179,902

The investigators, in an attempt to improve the limited results that have been found previously for programs of cognitive training using image association mnemonic techniques, have found that three types of preliminary treaining enhanced learning of mnemonics and produced overall results showing improvements from baseline in the criterion measures.

During this past year data have been collected from 280 subjects and entered into computer files in preparation for analysis. As originally stated, the hypotheses are:

1. Subjects who improve most from verbal elaboration of visual image association mnemonics will have high scores on measures of verbal intelligence and low scores on state anxiety measures.

2. Subjects who improve most from training in relaxation for performance anxiety prior to learning mnemonics will have low scores on measures of verbal intelligence and high scores on measures of state anxiety.

3. The NEO Personality Inventory will provide additional personality attributes not considered in Hypotheses 1-2 which reflect performance outcome.

4. Participants will improve more with training combining two of the most effective treatments (mnemonic training plus pretraining in verbal elaboration of associations and pretraining in relaxation for performance anxiety), than participants receiving either treatment alone.

1R01MH43427-01, Paul Bell, Ph.D., Colorado State University, "Physical Aggression in the Mentally Ill Elderly", $136,463

This study will examine how physical aggression in the elderly mentally ill impacts patients, program and staff, and policy in the public sector mental health system. Preliminary evidence suggests that assaultiveness in these clients is highly correlated with the presence of organic symptoms. Such patients are much more likely than nonviolent elderly to have a record of multiple admissions.

In collaboration with the Colorado Division of Mental Health, data sets will be assembled to include:
1. detailed computerized archives for 9 years from Colorado
2. treatment and outcome data from chart records in Colorado state hospitals for four years
3. longitudinal data for one year at Colorado state hospitals
4. archival Colorado state hospital records for 9 years covering staff injuries due to assaults.

Analysis of the data sets will permit a study of the clinical and treatment profiles for these clients, an assessment of correlates of onset and treatment outcomes as well as impact on program ad staff, and implications for current and potential system policies.

1R01MH45293-01, Barry Rovner, M.D., Johns Hopkins University, "A Randomized Trial of Dementia Care in Nursing Homes", $240,282

The majority of nursing home (NH) patients have mental disorders or behavioral problems, yet no randomized controlled clinical trials exist comparing methods to treat these problems. Investigators propose to conduct randomized, controlled clinical trials to test the efficacy of a Psychiatric Intervention Program (PIP) to reduce behavior disorders in demented NH patients. The PIP will consist of 1) multidisciplinary clinical rounds directed by a psychiatrist, 2) defined psychotropic drug protocols, and 3) an activities program designed specifically for demented patients.

The primary outcome will be behavior disorder and will be assessed by trained raters masked to patients' treatment assignment and by NH staff unmasked to treatment assignment. Impact of the intervention on secondary outcomes such as use of restraints, cognitive status, functional capabity, family satisfaction, nursing staff job satisfaction and costs of the intervention in relation to other NH costs.

This work will provide information on a new approach to the treatment of behavior disorder in NHs. The expectation is that the treatment will be effective at a reasonable cost and has the potential for application in other NHs in the U.S.

5R01MH42566-03, Leonard Gottesman, Ph.D., Community Services Institute, "Care for the Old and Mentally Ill in Personal Care Homes", $224,101

This is a study comparing two strategies for the improvement of mental health care for elderly mentally ill residents of personal care homes. One strategy focuses heavily on more individualized care to a limited number of residents. The other involves a broader and more general increase of mental health services to a larger number of homes and residents.

In the 02 year of this grant the following activities were carried out:

a. data entry, data analysis and reporting of experimental and control group information gathered in baseline testing.

b. continuation of the experimental intervention as planned. The final intervention model for the study was developed in year 01.

Some instruments were dropped because they had too little variation of responses among respondents to be useful as longitudinal measures. Several new data collection questions were added to cover additional background information needed.

Year 3 will continue as planned:

1. clinical services will continue to be offered to residents of the 6 personal care homes in the experimental group.
2. collection of a 3rd administration of the questionnaires regarding residents of the experimental and control groups.
3. analysis of data regarding all of the collections
4. preparation of an overall description of the project impact on the experimental residents and homes in the study.
5. preparation of articles which describe the characteristics of residents of personal care homes in this study.
6. preparation of an article on the characteristics and service needs of mentally ill elderly personal care home residents.
7. preparation of an article on the relationship of medications used by residents to the kinds of chronic physical and mental illnesses they are reported to have.

5R01MH42915-03, James Curry, Ph.D., University of Iowa, "Work Stress and Morale among Nursing Home Employees", $76,304

The study is a longitudinal investigation of work stress and morale among nursing home employees. The two sources of data are telephone inverviews with nursing home employees and data collected directly from the nursing homes. Investigators are gaining understanding on the process whereby work stress influences morale. Two waves of interviews were completed during the past (02) year. Resident case mix is measured as functional disability (ADLs), behavioral problems (e.g., wandering, screaming) and cognitive impairment. Preliminary analyses suggest that the level of disability among residents is not necessarily stressful for caregivers. Each nursing home has been provided with an individualized analysis of stress and morale for their employees.

During the 03 year, the third wave of interviews will be completed. A series of comprehensive analyses will be undertaken. Most analyses to date have been accomplished with traditional statistical methods. Future analyses will exploit more fully the longitudinal nature of the data. For example, structural equation modeling with multiple indicators (using LISREL) will allow exploration of the dynamics of the stress process over time.

Planned analyses will further explore substantively meaningful relationships in the data. For example, a factor analysis of the wave 1 nursing stress items yielded six subscales: death and dying, work load, being unprepared to meet residents' emotional needs, conflict with the supervisor, coworker support, and uncertainty concerning residents' medical treatment. Future analyses will investigate the extent to which the effects of these aspects of stress have differential effects on morale.

1 R01 MH45780-01, Carl Cohen, M.D., SUNY, "Older Homeless Women", $140,586

Little has been known about older homeless women and therefore it has been difficult to assess their needs or plan an appropriate array of health and supportive services for them. This research grant will use survey techniques, in-depth interviewing, and ethnographic techniques. 250 homeless women aged 50 and over living in the shelters and streets of New York City will be interviewed. Specific areas to be examined are:

1. demographics, mental and physical health, substance abuse, victimization, social needs and supports.
2. subsets of the population such as the mentally ill and substance abusers
3. pathways to homelessness
4. social networks and their relevance to survival
5. psychological/phenomenological aspects of the homeless condition
6. environmental/social context of homelessness
7. marginal and community populations examined previously

2R01MH41766-03, Claire Collins, Ph.D., Michigan State University, "Impact of Alzheimer's Disease on Family Caregivers", $172,138

The purpose of this ongoing grant has been to develop and test the psychometric properties of instruments to measure the following aspects of the experience of family caregivers in Alzheimer's disease: caregiver involvement in providing care, reactions to caregiving burdens, financial consequences, effects on employment, physical and mental health and social functioning; and use of health services. Further, the researchers plan to examine caregivers' perceptions of the availability of, need for and barriers to use of community services in order to understand the conditions under which community services are needed and used. This study represents a cost-effective approach to obtaining longitudinal data that will provide highly relevant information to NIMH for use in establishing important features of interventions for family caregivers.

5R01MH42840-02, Igor Grant, M.D., UCSD, "Alzheimer Caregiver Coping: Mental and Physical Health", $238,239

This study of Alzheimer caregivers and a comparison group of non-caregivers currently has 50 subjects in the study and 45 potential subjects. All have undergone baseline psychosocial interview, blood draw for immune neuroendocrine and catecholamine assays, and neuropsychological assessment. Mean age of the caregiver is 70.6 and 72.3 for the controls. Data gathered for the psychological interview include coping activity, perceived stress, social support, past medical history, cognitive process, physical and psychologic health outcome, and biological mediators. Preliminary analyses show the caregivers to be highly stressed. They report being more satisfied with the emotional support received from their support network and are less satisfied with their lives and are more burdened than are controls. In terms of caregiver health, they are more depressed, their quality of well being index is identical to the controls, they report fewer symptoms, and to date the immunological system activity is not different from the controls - neuroendocrine assays will be conducted in batch when more of the cohort has been enrolled.

From these data the researchers conclude that the caregivers are 1) stressed, 2) have different coping and social support patterns than the controls and; 3) are currently relatively healthy.

1R01MH43407-01, Dolores Gallagher, Ph.D., VAMC-Palo Alto, "Mental Health Risk Factors in Caregiving: Assessment and Intervention", $139,621

This is a study of 150 female spouse caregivers, ages 55-80, whose husbands are victims of Alzheimer's disease. Following extensive psychological, medical, and laboratory evaluation at Time One (Baseline) caregivers will be randomly assigned to one of three intervention conditions: anger management class (AMC); depression management class (DMC), or wait list control (WL), which is a treatment as usual condition. Each class series will run for 10 weeks. Then there will be a Time Two evaluation to measure the extent of pre/ post improvement in indices of psychological distress. In addition, those who were in the WL will now be offered the chance to enroll in either class. Evaluations will occur again after 6 months and after 1 year.

Major hypotheses of this study are:
1. caregivers who participate in either the Anger Management Class or the Depression Management class will show greater improvement in psychological distress
2. Caregivers with high anger at Time 1 will show greater improvement in the anger outcome if they receive the AMC rather than the DMC
3. The mechanism of change from pre to post intervention will be increased self-efficacy perceptions over time in those caregivers who participate in either class series.

5 P01 MH43371-02, M. Powell Lawton, Ph.D., Phila. Geriatric Center, "Caregiving & Mental Health: A Multifaceted Approach", $828,340

This grant will examine several large areas of concern regarding the process of caregiving by adult children to impaired people. Three seperate projects will pursue different qustions on caregiving stress. They will share a common data core. The common theme is the study of variations in the process of caregiving and the mental health outcomes of caregiving that are associated with marital status, intrafamilial dynamics, length of caregiving and characteristics of the person.

During the first year of this grant, staff were recruited and the interview schedule for use in the study was designed. Strategies were designed and implemented for accessing the sample. Data collection has proceeded on schedule.

The second year will continue the recruitment and data-gathering phase for The Family project, The Marital Status project, and The Caregiving Career project. Also preliminary analytic reports for each of the 3 projects will be prepared. Approximately 1121 interviews will have been completed by the end of the 02 year.

5R01MH39637-03, Gregory Hinrichsen, Ph.D., Hillside Hospital, "Mental Health of Depressed Aged and Their Caregivers", $70,498

The purpose of this research is to study the mental health of caregivers to aged persons with Major Depressive Disorders and to examine the impact that caregiveer coping behavior has on the older patient's depressive illness.

There have been no changes in the goals of the study in the past year. Research efforts have been focused in four areas:

1. Time one subject recruitment and interviewing - 120 depressed aged and their adult child or spouse caregivers have been enrolled.
2. Time two followup interviews - 95 followup interviews with discharged older patients and/or their caregivers have been completed.
3. Time three followup interviews - 60 on-year followup interviews have been completed.
4. Data preparation and analysis - Recent data analyses have found that characteristics of the caregiver are better predictors of caregiver coping behavior than demographic or illness characteristics of the patient. Of particular note is the fact that greater caregiver use of virtually all coping and patient management strategies is related to caregiver impaired mental health and greater burden. This finding underscores the inherently frustrating nature of interacting with depressed persons.

5R01MH42096-03, Janice Kiecolt-Glaser, Ph.D., Ohio State University, "Caregivers of AD Victims: Stress and Mental Health", $290,991

This study is using a prospective design to better understand the longer-term mental and physical health consequences of caregiving for AD victims. Psychological data, blood samples for immunological and nutritional analyses are being obtained, as is health status information from AD family caregivers and similar comparison subjects.

First year's data analysis indicates that caregivers are significantly more distressed than comparison subjects. In addition, caregivers report significantly more infectious disease in the last 6 months than controls. The investigators find more reliable differences in qualitative or functional immunological assays, compared to quantitative or enumerative assays; this is of particular interest, because the aging immune system shows its greatest deficits in functional or qualitative aspects of immunity. They have found differences in two blastogenesis assays between caregivers and controls.

Spousal caregivers are the caregiver subgroup that show the highest rates of psychiatric dysfunction . Approximately 30% of spousal caregivers met DSM-III criteria for an affective disorder during the caregiving period, compared to virtually none for the matched comparison subjects. Rates of affective disorder are lower among offspring caregivers.

Data are beginning to indicate that spousal caregivers who experience high levels of negative or upsetting support may be a particular at-risk group, consistent with the original experimental hypotheses. Analysis of the second year data will help assess the direction of causality, i.e., whether the effect is still significant and consistent when controlled for earlier levels of depression and dysphoria.

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5R01MH42163-02, Karl Pillemer, Ph.D., University of New Hampshire, "Social Relations of Alzheimer's Caregivers across Time", $165,582

This study is investigating changes in the social networks and burden of primary caregivers to elderly relatives with Alzheimer's disease over a two year period following the initial diagnosis of dementia. The study will examine the ways in which changes in the structure and function of social networks affect caregiver burden.

In the 01 year of this grant, the following activities were completed:

In brief, so far, the respondents see themselves as being in the early stages of their caregiving career, their social networks have experienced few changes as the result of caregiving, there is great variation in the structure and function of their networks, most are currently receiving assistance in caring for their relative, and many have received some criticism from network members regarding their performance as caregivers.

Several new sites are being developed and the criteria for participation in the study is being expanded. In this coming year, the primary focus will be data collection from Time I interviews, development of Time 1 interview schedule, and conducting Time II interviews with subjects already in the study. Data will be prepared from both waves for analysis.

5R01MH42122-02, Leonard Pearlin, Ph.D., UCSF, "Sources and Mediators of Alzheimer's Caregiver Stress", $285,585

The goals of this study are: to identify a range of stressors experienced by Alzheimer's caregivers, the coping strategies they adopt to deal with the stressors, their access to and uses of formal and informal support and the consequences of this stress process for symptoms of depression and physical illness. The study conceives of the strains encountered within the caregiver role proper as central among the stressors. These strains results from the assistance the caregiver must provide the impaired person in daily activities, from the management of behavior and from the overloads on time and energy. Investigators expect to find that the more intense the various strains and the more extensively they are diffused into different areas of life, the more mental and physical health will suffer.

During the first year the study was expanded to include sample from the Los Angeles area. Only about 350 eligible people were recruited and the additional 400 people to be studied will come from the Los Angeles area and the LA ADRDA will provide assistance, as will the Survey Research Center at UCLA. The development of the interview schedule and the beginning interviews were performed.

5 P50 MH40159-06, Dan Blazer, Duke Univ., Clinical Research Center, $603,108

The primary goal of the Duke Center has been to define and validate a limited number of depressive subtypes in late life that are clinically relevant and prime for further study because of recent advances in neurosciences, nosology, and epidemiology, as well as biologic and psychologic approaches to therapy. Four subtypes of late life depression have been targeted for study: 1) major depressive episodes, 2) dysthymia, 3) mixed anxiety and despressive disorders, and 4) dysphoria not asociated with the above three subtypes. Core activities provide standardized assessments for depressed elderly patients and appropriate controls as well as assistance with data collection, management, and analysis. A core longitudinal study provices information regarding the phenomenology of late life depression, as well as a framework for integration of findings and concepts on several projects - biological markers, electroconvulsive shock therapy, and cognitive behavior therapy.

5R01MH43267-02, Peter Vitaliano, Ph.D., University of Washington, "Correlates of Mental Health in DAT Spouses", $351,007

This is a longitudinal study of psychosocial, immunological, and cardiovascular distress in 70 spouses of mild DAT patients compared to the distress in 70 age-sex-and health status-matches spouses of controls.

In the 01 year, the following results were found: in the two groups, AD patients and controls, there was a difference on MMS and Hamilton ratings. However, the groups are similar in global ratings of patient's/control's physical health. In terms of immune and cardiovascular variables the two groups of spouses (AD caregivers & controls) are similar. The two groups of spouses are most different in the psychosocial variables. Caregivers have a slight trend toward higher anxiety, depression and religiosity and a trend toward less problem-focused coping. Most AD spouses chose the health of their spouses as their major stressor, whereas most control spouses chose problems with their children.

In the second year initial levels of psychosocial, immune and cardiovascular distress in cases versus controls will be compared. Also to be compared are the initial intercorrelations of immunocompetence, cardiovascular and psychosocial variables in the cases and controls. The studies conducted in Year 1 involve psychosocial assessment, immunocompetence, and cardiovascular measures. The protocols planned for Year 2 are the same as those reviewed originally.

2P50 MH40381-04, Eric Caine, M.D., Univ. of Rochester, "Clinical Research Center", $930,699

This Clinical Research Center was approved in FY 1989 for continuation for three more years, bringing the total number of years to six. Researchers are continuating to pursue the following broad goals:

1. establish and conduct multidisciplinary, clinical and lab research to further understand the neurobiological bases of abnormal behavior in the elderly;
2. maintain and strengthen their unique, collaborative research setting, and continue to provide support for case identification and followup, biostatistical consultation, and data management;
3. coordinate research programs in the University of Rochester which deal with behavior disorders in the elderly;
4. continue education and training programs;
5. support related, new research efforts.

This CRC/PE is composed of five cores, including Administrative, Data Management/Biostatistics, Research Clinical Assessment, Brain Acquisition, and Education/Training; and four research laboratories, including Psychopharmacology, Neuropsychology, Suicide Studies and Neuroscience.

5 P50 MH40380-05, M. Powell Lawton, Philadelphia Geriatric Center, Clinical Research Center, $687,356

This grant program, dealing with depression as it occurs in a residential care setting for older people, is both multidisciplinary and longitudinal. Five projects are involved:

1. A study of medical treatment efficacy and diagnostic reliability of the attribution of depressive symptoms in residents with four possible mild "physical" sources of depression; thyroid deficiency, iron deficiency anemia, chronic obstructive pulmonary disease, and those receiving "depressogenic" durgs.
3. a study of the affective life and its relation to daily events of depressed and non depressed residents.
4. a study of suicidal ideation, suicidal behavior, indirect suicidal behavior, and psychopathological versus "existential" suicidal motivation in depressed and nondepressed residents.
5. a study of the fdamilial interactions and relationships of depressed and non depressed people.

1 P50 MH43486-01A1, Steven Ferris, Ph.D., NYU, "Clinical Research Center", $436,559

This is a new Clinical Research Center funded in FY 1989. It has an established group of investigators committed to geriatric psychopharmacology. The Center will encompass existing physical, patient and lab resources as well as relevant ongoing and new research projects. The major goal of the Center is to integrate, expand and facilitate innovative research to extend basic knowledge and improve the pharmacologic treatment of cognitive disorders in the elderly. Normal elderly, Alzheimer's disease, and subjects with age-associated memory impairment will be included. In adition to expansion of an existing core research program, two new clinical trials will evaluate the relative efficacy of arecoline and nicotine in treating AD and will evaluate the treatment of mild memory impairment in AAMI with phosphatidylserine. A PET study will compare the effects of scopolamine to the PET changes seen in normal aging and AD. An Early Drug Trial Unit will conduct pilot studies on AD patients with the ganglioside GM1, and on a white matter lesion subgroup with the antihypertensive, captopril.

In the Core Reearch Program, a 700 subject longitudinal database will permit study of the prognosis, course, early diagnosis, and etiology of cognitive decline and related psychopathology in the elderly.

5 P50 MH43444-03, Peter Whitehouse, Univ. Hospitals of Cleveland, Clinical Research Center, $312,801

This CRC is characterising cognitive and psychiatric symptoms of a population of AD patients, following them longitudinally, and exploring the relationships betwen alterations in adrenergic and serotonergic markers in life and in death with the clinical features. The goal of the CRC is to contribute to a better understanding of the biological basis of the cognitive and behavioral manifestations of AD, which will lead to better diagnostic and therapeutic approaches. There are six cores: clinical, clinical pharmacolopgy, neuroimaging, neuropathology, data management and analysis, and administrative. Five specific research projects are included in the proposal: 1) biochemical assessment of serotonergic and noradrenergic markers in blood platelets, 2) the role of adrenergic and serotonergic systems in the regulation of cortisol secretion and glucocorticoid receptor systems in the regulation of cortisol secretion and glucocorticoid receptor number, 3) post morten alterations in cortical, adrenergic, and serotonergic binding sites, 4) description of the pathology of the locus corruleus and raphe nucleii, and 5) studies of the neural control of blood-brain barrier regulation.

5 P50 MH40041-06, Jerome Yesavage, Stanford Univ., Clinical Research Center, $535,977

The theme of this CRC is to identify areas of "excess disability" in patients with primary degenerative dementia (PPD) which may be alleviated to improve functional status. 150 patients with PDD and a group of control subjects will receive core cognitive/behavioral assessment and will be followed for at least two years. In addition, both groups of subjects will be evaluated with various specialized biochemical, electrophysiological, brain imagery, sleep, and medical assessments. One component of the proposed research would study the course of psychosocial needs of caregivers of PDD patients and will attempt to develolp model programs for treating depression in this group. In addition to the core assessment component, the following 5 projects are being undertaken:

1. Biochemical correlates of PDD
2. Electrophysiological and Brain Image Correlates of PDD
3. Sleep Correlates of PDD
4. Medical Correlates of PDD
5. Caregiver Correlates of PDD

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1 KO7 MH00787-01, Chris Colenda, M.D., Med. College of VA., "Geriatric Mental Health Academic Award", $79,380

This is a new Geriatric Mental Health Academic Award designed to develop the nominee's capability as an independent researcher and resource person in geriatric psychiatry at the Medical College of Va. Dr. Colenda will be performing the following: individual research supervision with local and national experts in research methodology and geriatric psychiatry; supplemental course work in statistics; advance course work in epidemiological research design; implementation of a systematic survey of aggressive behavior in AD patients and their families; systematic approach to pharmacological interventions in aggressive AD patients; attend research conference in geriatric psychiatry; and continue to develop a leadership role in Geriatrics and Geriatric Psychiatry at MCV/VCU.

5 KO7 MH00697-03, Cornelia Beck, Univ. of Arkansas, Geriatric Mental Health Academic Award, $72,930

The purpose of this academic award is to prepare the nominee, Cornelia Beck, for an academic research career in geriatric mental health. The expansion and refinement of the nominee's research abilities and clinical expertise in geriatric mental health will be achieved through: 1) self directed study in research methodology, in the cognitive changes in the elderly, and in the neurophysiological correlates of these changes, 2) consultation with experts who are active in research in cognitive skills training, 3) supervision by a neuropsychologist in an evoked potential lab to learn lab techniques for testing cognitive processing strategies, and 4) clinical experience in an Alzheimer's clinic supervised by a geriatric neurologist.

In the past year, Dr. Beck has spent a significant portion of her time on refining her skills in proposal writing and in conducting research. She has attended biweekly Department of sychiatry research conferences, and has also met biweekly with the interdisciplinary team of the Dementia Clinic and has assisted them in organizing the data which was collected on the first 240 patients.

5 KO7 MH00748-02, Yeates Conwell, Univ. of Rochester, Geriatric Mental Health Academic Award, $77,198

This Academic Award is enabling Dr. Conwell to undertake a series of investigations of suicide in the elderly. The proposed research is multidimensional, and includes epidemiological, clinical/descriptive, and neurobiological perspectives. The trainee will also take courses, study independently, and seek expert consultation in areas relevant to the investigation of suicide and late life affective disorders.

Druing the first year of this grant, Dr. Conwell was involved in the following areas of research development: 1) retrospective studies, 2) psychological autopsy study, 3) neurobiology of suicide study, and 4) attempted suicide and comparison groups study. As far as educational objectives are concerned, he completed two statistics courses, and had several expert consultation meetings. He has also fostered research by maintaining numerous collaborative relationships with other investigators. In the next year, Dr. Conwell plans the rigorous study of the population manifesting suicidal behavior in late life by defining their psychopathology, physical health status, functional status, life stressors, and social networks.

1 KO7 MH00821-01, Charles Kellner, M.D., Med. Univ. of S. Carolina, "Geriatric Mental Health Academic Award", $71,003

This is a new application for a Geriatric Mental Health Academic Award. The goal of the application is to train the nominee to be an expert academic clinician/researcher in the field of depression in the aging. He will be training faculty and residents in the Southeastern region of the U.S. and continue his career as an academic neuropsychiatist. The program has four components:

1. training in geriatric medicine
2. advanced training and research in electroconvulsive therapy
3. training and research in MRI, PET, and BEAM
4. training in research methodology and biostatistics.

For each of these four components, a program of formal courses, consultation with national experts, clinical work, teaching and research activities is planned.

1 KO7 MH00792-01, Carolyn Hoch, Ph.D., Western Psych. Inst., "Geriatric Mental Health Academic Award", $56,800

During the period of this new Geriatric Mental Health Academic Award, Dr. Hoch plans to systematically expand her investigative capabilities through a program of interdisciplinary research and advanced education and training. Her research activities will be integrated with her professional nursing responsibilities and promote her skills in sleep research and psychometrics. Her independent investigative development will be accomplished by the following activities:

1. training at 3 major sleep research centers;
2. academic studies in advanced research design and measurement;
3. research consultation and teaching;
4. independent study with experts;
5. attendance at national scientific research conferences;
6. implementation of a research program.

The objectives of the three year research program are to 1) elucidate the impact of sleep apnea on the cognitive, affective, and behavioral functioning of elderly individuals with probable Alzheimer's disease; and 2) to develop a nursing assessment instrument designed specifically for use with Alzheimer's patients. Two complementary studies will be simultaneously conducted, "Sleep Apnea and Mental Deterioration in Alzheimer's Disease" and "Alzheimer's Assessment: An Adaptation Instrument".

5 KO7 MH00740-02, Stephanie Nagley, Case Western Reserve, Geriatric Mental Health Academic Award, $70,427

The objectives of this award are for Dr. Nagley to complete a course plan that includes courses in research methods and analysis, and geriatric mental health nursing practice, have a supervised clinical clerkship with a geropsychiatrist, and consultation with experts in aging and research and practice.

During the past year, Dr. Nagley has developed her clinical expertise in geriatric mental health practice throug independent study, consultations with gerontological nurses and geriatric psychiatrists, and through course work. She has collaborated with geriatric mental health experts across disciplines, and she has engaged in a research program which will involve the identification of acute confusional states which may occur in the absence of, or along with, chronic confusional states.

5 KO7 MH00687-03, Thomas Oxman, Dartmouth, Geriatric Mental Health Academic Award, $78,360.

The long term goals of the applicant are to investigate in an elderly rural population the roles of physiological and social factors in the onset of and recovery from mental disorders.

In the past year, Dr. Oxman enrolled in a research methodology course, had weekly supervision meetings regarding planning a research project, and in general is progressing according to the schedule described in his initial application. He has taught third year residents on geriatrtic psychiatry, he has served as Chairman of the Department's Research Committee, and has been asked to serve on a Medical Center Graduate Medical Education Committee.

1 KO7 MH00823-01, Daniel Plotkin, M.D., UCLA, "Geriatric Mental Health Academic Award", $77,390

This Geriatric Mental Health Academic Award proposes to prepare Dr. Daniel Plotkin for a faculty leadership role in geriatric psychiatry research at UCLA, with a special emphasis on partial hospitalization. The aims of the 3-year program of advanced study and supervised experience are: 1) to support and enhance Dr. Plotkin's development as an investigator in geriatric psychiatry and in delivery of mental health services to the elderly; 2) to implement at UCLA an intensive study of geriatric mental health care delivered via partial hospitalizaiton and 3) to foster the training and cooperative involvement of students and faculty in psychiatry and other departments at UCLA in geriatric psychiatry, partial hospitalization, and mental health services research through teaching, consultation and dissemination of information.

Dr. Plotkin's aims will be achieved through a 3 part plan:

1. a program of structured academic courses aimed at development of research skills
2. investigation of partial hospitalization for the mentally-ill elderly
3. supervision and train medical students, interns, residents, and fellows.

5 KO2 MH00295-10, Charles Reynolds, Western Psychiatric Inst., Research Scientist Development Award, $62,208

This is a study of sleep-wake regulation in normal and pathologic aging persons. The goal is the development of objective indicators of diagnosis, of treatment response to antidepressant therapy, and of prognosis. This goal will be achieved by comparing baseline sleep measures among groups of mixed-symptom patients who are responders, partial responders, or non-responders to adequate antidepressant therapy. The experimental hypothesis of this study is that patients with reversible dementia of depression will show sleep and other psychobiologic measures similar to those of depressives without cognitive impairment, while other mixed symptom patients with early Alzheimer's disease and symptoms of depression will show sleep and psychobiologic measures more similar to those of Alzheimer patients already studied to date.

During the past year, Dr. Reynolds has continued to serve as Principal Investigator of two NIMH-funded RO1's: "EEG Sleep, Aging, and Mental Illness", and "Maintenance Therapies in Late-Life Depression". During the 09 year, Dr. Reynolds has had to learn more about several diverse areas, all related to his research: 1) the construction of questionnaires and the testing of their psychometric properties, 2) the application of multivariate statistical technques to large complex data sets, 3) the design and analysis of data from longitudinal controlled clinical trials, 4) the modification of intervention strategies for long term use in the elderly depressed, and 5) the vagaries of performance testing in the elderly. His professional development has been enhanced through his numerous collaborations with other colleagues and through visits to other laboratories.

3 KO5 MH00364-07S1, George Vaillant, Dartmouth, Research Scientist Development Award, $20,898

Dr. Vaillant has been performing life course studies using two valuable longitudinal datasets, the College Cohort and Core City Cohort on men. His studies of mental health, and its relationship to physical health across the second half of life, have led to an important reformulation of the relationship between stress and illness. Both samples have been continuously followed for 45 years. Originally, an interdisciplinary study was made of each subject; parents were interviewed; development histories, school records and the health and psychopathology of relatives were ascertained. Psychological and physiological tests were undertaken.

Major questions being asked are:

1) How does preexisting mental health affect maintenance of physical health?
2) What familiar, childhood and premorbid psychological variables are associated with resilient and vigorous adaption to life after 65?
3) What is the natural history of marital and occupational careers over the adult life cycle? What is their relation to psychopathology?
4) Can defense mechanisms be made operational?

5 KO7 MH00733-02, Pierre Tariot, M.D., Monroe Community Hospital, Geriatric Mental Health Academic Award, $77,096

This award will assist Dr. Tariot in his development as a researcher who can devise and validate new investigative strategies, help develop other researcher's skills, and introduce research findings in mental disorders of the aging. The nominee's development will be guided by three major themes during the period of the award. The first is acquiring expertise in the phenomenologic characterization of behavioral disorders in the aged, as well as in measurement of such behaviors, both for prospective phenomenologic studies as well as neuropharmacologic studies. The second theme is clinical neuropharmacology, which the nominee will pursue with a hierarchy of studies that will relate to each other as well as other themes. The third theme is that of prevention, both from pharmacologic and non-pharmacologic perspectives.

In the past year, Dr. Tariot has been involved in many studies, including a carbamazepine study, a scopolamine challence in neuropsychiatric patients study, an arecoline in Alzheimer's Disease study, and an L-Deprenyl in Alzheimer's Disease study.

5 KO1 MH00540-04, George Zubenko, Univ. of Pittsburgh-Western Psych, Geriatric Mental Helath Academic Award, $61,788

This Research Scientist Development Award employs fluorescence spectroscopy as a tool to probe the biophysical characteristics of blood cell and brain synaptosomal membranes from patients with Alzheimer's disease.

Dr. Zubenko has made major steps in the development of his research program and professional career during the third year of this award. His emerging findings of abnormal platelet membrane fluidity in a clinically-distinct subgroup of patients with Alzheimer's disease may advance our understanding of this illness and may suggest rational treatment strategies. Dr. Zubenko is also a highly valued teacher in the Department, and a member of several departmental and medical school committees.

1 UO1 MH46281-01, Marilyn Albert, Mass. General Hospital, "Genetic Studies of Alzheimer's Disease", $220,911

The goal of this proposal is to identify sib-pairs with Alzheimer's Disease. It is also hoped that many of these cases will have informative family histories in relation to A.D., i.e., evidence of demential in parents and multiple other ancestors.

The proposal is in response to a request for applications concerning "Diagnostic Center for Psychiatric Linkage Studies".

1UO1 MH46290-01, Marshal Folstein, Johns Hopkins Univ., "Diagnostic Centers for Psychiatric Linkate Studies", $228,911

This project aims to develop a diagnostic center for Alzheimer's disease and to ascertain families with a proband with AD to serve as a resource for genetic linkage studies. Specific aims are:

1. develop a diagnostic protocol for the assessment of amilies with familial Alzheimer's disease,

2. determine the appropriate small family configuration for future linkage studies.

3. collect 133 families, ascertained through a proband with Alzheimer's disease with one or more sibs who have been examined and classified as probably Alzheimer's disease,

4. develop a protocol for the collection of blood samples from these families to allow the establishment of permanent lymphoblastoid cell lines.

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1 UO1 MH46373-01, Rodney Go, Univ. of Alabama, "Etiologic Heterogeneity in Familial Alzheimer's Disease", $197,120

This proposal's overall objective is to identify 134 Alzheimer's Disease probands, and to recruit all their first degree relatives into this cooperative multicenter study. The probands will be thoroughly evaluated clinically through neurological examinations, metabolic profiles, CSF tests, neuroradiological and neuropschological tests.

The study will be attempting to:

1. determine the proportion of FAD cases in the Memory Disorders Clinic which have a FAD gene on chromosome 21,
2. to determine if DNA mutations within the Prion Protein coding regions affect AD susceptibility in cases and their family members,
3. to getermine if certain retrovirus genomes (HTLV) may be involved in the onset of dementia and AD in this population.

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1 T32 MH18907-01, Joyce Fitzpatrick, Case Western Reserve University, "Pre and Postdoc Training in Geriatric Mental Health Nursing Research", $87,960

The specific aim of this project is to develop pre and postdoctoral research training opportunities for nurses who are pursuing careers in geriatric mental health research. Specifically this program will provide a unique opportunity for combining a strong theoretical orientation with an emphasis on research skills for the study of the mental health problems of older adults. The long range goal of the project is to contribute to the pool of nurse researchers prepared in geriatric mental health and to increase the body of knowledge related to the practice of geriatric mental health nursing.

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1 T32 MH19100-01, Ira Katz, Medical College of Pennsylvania, "Research Training in Mental Health in the Frial Elderly", $68,234

This is a multidisciplinary, collaborative fellowship program to train new investigators in research on the mental health and psychiatric disorders of the frail elderly. There will be Core Tutorials that will cover the areas of geriatric psychiatry and psychology, clinical gerontology and research methods. Trainees will participate as research apprentices in one of the ongoing projects. After the orientation phase, the focus of the program will be on supervised independent research and individualized coursework. Unique features of this program include the focus on the frail elderly, locations of the program within an affiliation between a service setting and a medical school, the existence within this setting of active interdisciplinary, collaborative research involving the program faculty and established access to subjects including large residential and community populations.

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1 T32 MH19104-01, Larry Thompson, Stanford Univ., "Research Training in Mental Health and Aging", $49,856

This program will implement a one year full time broadly diversified training experience in geriatric research focusing on mental health problems of the aging for doctoral level psychologists. Intensive research experience will be offered in one of four tracks: neuropsychology, assessment and psychotherapy, behavioral medicine, and community outreach prevention. Trainees will gain experience in data collection and management, statistical analyses of various types of data, and the opportunity to co-author paper presentations and publications in professional journals. Criteria for acceptance will focus on research interests of trainees, their potential for an academic career in geropsychology, and performance within graduate school training.

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SUMMARY STATEMENT
(Privileged Communication)

2 K05 MH00334-16

MSK

NIMH RESEARCH SCIENTIST DEVLPT REV COMM RS-2
FEB. 20-22, 1985

ROBINS, LEE N PHD
PROFESSOR OF SOCIOLOGY IN PSYCHIATRY
WASHINGTON UNIVERSITY
SAINT LOUIS MISSOURI 07/01/85

EPIDEMIOLOGY OF ACHIEVEMENT AND PSYCHIATRIC STATUS

APPROVAL (Unanimous) 117

30-HS INV.-CERTIFIED, NO IRG CONCERNS OR COMMENTS.
10-NO VERTEBRATE ANIMALS INVOLVED.

16	52,449	52,449
17	52,449	52,449
18	52,449	52,449
19	52,449	52,449
20	52,449	52,449

APPLICANT'S ABSTRACT:

Analysis will be completed on the following for which data have been collected: the multi-site ECA project, a follow-up of former alcoholics, the effects of disaster on mental health, early home environment as a predictor of alcoholism and depression, and factors explaining the low rate of psychiatric disorders in elderly respondents. Further development of the Diagnostic Interview Schedule and the Composite International Diagnostic Interview will be carried out in several directions, including publication of revisions, instructions for use, preparation of training materials, development of a brief screening version, and development of a computer-presented version. These revisions will also be pretested. Three studies involve the collection of new data: a prospective study of dementia in elderly respondents found to be non-demented in the ECA, a follow-up of ECA subjects reevaluated by a physician six years previously, and an epidemiological study of adolescents appearing for health care and followed one year later.

FINAL ACTION: May 13-15, 1985

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SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 R01 MH40603-03A2

EPS 1 GROUP: DUAL:

REVIEW GROUP: EPIDEMIOLOGIC RESEARCH SUBCOMMITTEE

MEETING DATE: OCT./NOV. 88 PRG CL CD: EP DUAL PRG CL CD:

INVESTIGATOR: LEAF, PHILIP J DEGREE: PHD
ASSOCIATE PROFESSOR

ORGANIZATION: YALE UNIVERSITY RFA:

CITY, STATE: NEW HAVEN, CT REQ. START DATE: 04/01/89

PROJECT TITLE: EPIDEMIOLOGIC CATCHMENT AREA PROGRAM

RECOMMENDATION: APPROVAL PRIORITY SCORE: 120
PERCENTILE SCORE: 19.4

SPECIAL NOTE: 30-HS INV.-CERTIFIED NO IRG CONCERNS OR COMMENTS
10-NO LIVE VERTEBRATE ANIMALS INVOLVED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
03A2	199,147	199,147
04	139,238	139,238
05	74,381	74,381

APPLICANT'S ABSTRACT:

This project requests 30 months of funding for an extension of the Yale Epidemiologic Catchment Area (ECA) Project. We plan to collect new data and use existing data to examine the extent to which psychiatric status is related to increased risk of mortality in community residents. Despite considerable evidence that psychiatric disorders are related to increased risk of mortality in patients, there has been little work examining the magnitude of this relationship in persons not seeking treatment. In addition, recent reports indicate that the effect of psychiatric status on mortality vary by type of psychiatric disorder, and that these effects are more pronounced for specific causes of death, i.e., unnatural and cardiovascular deaths. With our large data set (N=5034), we have sufficient power to examine the relationship between psychiatric status and mortality, as well as the capacity to study the relationship between type of disorder and specific causes of death.

This project consists of two substudies: 1) the first examines the risk of mortality in the full Yale ECA sample over a nine year period (July 1980 - December 1989) 2) the second focuses on the eighteen month period more proximate to the interviews, and will examine the fluctuations and sequence of psychiatric and physical disorders leading to mortality in the 55 and older respondents. Grade of Membership (GOM) survival analyses will be employed in this substudy. Both substudies will test specific hypotheses about possible mediating factors, i.e., age, sex, age of onset of psychiatric disorders, social supports and health services utilization.

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[illegible]

SUMMARY STATEMENT - TRAINING

(Privileged Communication)

EPSA Application Number 2 T32 MH14235-11
Review Group: [illegible] EPID QUANTITATIVE SURV RES SUBCOMM EP
Meeting Date: MARCH 4-6, 1985

Program Director: KASL, STANISLAV V Degree: PHD
Position: PROFESSOR OF EPIDEMIOLOGY
Organization: YALE UNIVERSITY
City, State: NEW HAVEN CONNECTICUT Requested Start Date: 07/01/85

Training Area: RESEARCH TRAINING IN MENTAL HEALTH EPIDEMIOLOGY

Recommendation: APPROVAL Priority Score: 109
Sponsor Name:

10-NO HUMAN SUBJECTS INVOLVED.
10-NO LIVE VERTEBRATE ANIMALS INVOLVED.

YEAR	DIRECT COST REQUESTED	DIRECT COST RECOMMENDED	[illegible]
11	214,536	214,536	
12	223,245	223,245	
13	224,129	224,129	
14	233,365	233,365	
15	234,783	234,783	

APPLICANT'S ABSTRACT:

A. The purpose of the research training program is to provide advanced training in psychosocial and psychiatric epidemiology. Such training is offered to: a) those already committed to a career in epidemiology but needing in-depth training in methods and content of psychosocial epidemiology; b) those with relevant clinical training and experience who need to sharpen their general research skills and learn about epidemiology (psychiatrists, clinical psychologists, social workers); and c) those well trained in research methods of their own discipline (medical sociology, social psychology, human genetics, biometry) who are redirecting their career toward epidemiology and need to become familiar with its content and unique methods.

The program is eclectic and non-doctrinaire with respect to methods and content of research, and regarding conceptual formulations. Emphasis is on: 1) "natural experiments" in field settings as a way of supplementing traditional community surveys and case-control studies; 2) biological variables and physical health-illness data, as well as mental health, in order to provide a suitably broad context to the study of health and well-being of people; 3) an eclectic, multidisciplinary and multimethod approach to mental health-mental illness; and 4) training in methods specifically pertinent to major research themes of today, such as familial studies in psychiatry and establishing psychiatric diagnosis in community surveys.

The program is a continuation of 5T32 MH14235, Research Training in Mental Health Epidemiology. No major changes in program are contemplated.

B. The predoctoral trainees are primarily Ph.D. candidates in (chronic disease) epidemiology; at times, they will be Ph.D. candidates in (medical) sociology, and possibly, (community/clinical) psychology. They have to meet all the criteria for admission to the Yale Graduate School and the respective departments. Generally, they rank in the top 1/3 of Ph.D. candidates that are accepted and are not appointed unless they have a master's degree or have had 2 years of graduate study. The postdoctoral trainees are typically psychiatrists and Ph.D.'s in epidemiology, sociology, psychology, human genetics, and sociomedical sciences. They are selected because: a) they have excellent predoctoral credentials, b) they will benefit from the training, and c) they have a strong research career commitment to psychiatric and psychosocial

C. The primary training facility is the Department of Epidemiology and Public Health, Yale University School of Medicine. Other training sites will be the Department of Sociology, Psychiatry and Human Genetics, the Depression Research Unit, various divisions of the Connecticut Mental Health Center, and the Center for Health Studies at the Institution of Social and Policy Studies. FINAL ACTION: MAY 13-15, 1985

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SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 T32 MH14620-14
EPS 1 GROUP: DUAL:
REVIEW GROUP: EPIDEMIOLOGIC RESEARCH SUBCOMMITTEE

MEETING DATE: FEB./MARCH 89 PRG CL CD: EP DUAL PRG CL CD:

ROGRAM DIRECTOR: CROWE, RAYMOND R DEGREE: MD
PROFESSOR OF PSYCHIATRY
ORGANIZATION: UNIVERSITY OF IOWA
CITY, STATE: IOWA CITY IA
REQ. START DATE: 07/01/89

TRAINING AREA: POSTDOCTORAL FELLOWSHIP IN PSYCHIATRIC GENETICS
PRIORITY SCORE: 105

RECOMMENDATION: APPROVAL

SPECIAL NOTE: 30-HS INV.-CERTIFIED NO IRG CONCERNS OR COMMENTS
10-NO LIVE VERTEBRATE ANIMALS INVOLVED

YEAR	REQ. DIRECT	REC. DIRECT	GRANT PERIOD
14	111,198	111,198	
15	111,198	111,198	
16	111,198	111,198	
17	111,198		
18	111,198		

APPLICANT'S ABSTRACT:

This is a 1-3 year postdoctoral fellowship in psychiatric genetics open to candidates with a M.D., Ph.D., or equivalent degree and a background in health care. The fellowship consists of didactic coursework in research methodology and genetics, training in psychopathology, exposure to psychiatric genetics, and participation in a research project under faculty supervision. The emphasis of the program is on molecular genetic approaches in psychiatry, and this training is acquired through coursework through the university, the psychiatric genetics seminar, and a number of research projects within the department. The goals of the fellowship program are to train psychiatrists in research methodology and psychiatric genetics, and non-psychiatrists in psychopathology and genetics, so that they can pursue careers as independent investigators focusing on the genetics of psychiatric disorders.

FINAL ACTION: MAY 22-23, 1989

NIH 1303 6
Rev. 2 69

SUMMARY STATEMENT - TRAIN. 6

(Privileged Communication)

PCBA
Review Group: PCBA PSYCHOPATH RES SUBCOMM
Meeting Date: FEB/MARCH 1986
Application Number: 2 T32 MH16744-06
HP

Program Director: MOOS, RUDOLPH H
Position: PROFESSOR
Degree: PHD
Organization: STANFORD UNIVERSITY
City, State: STANFORD CALIFORNIA
Requested Start Date: 07/01/86

Training Area: BEHAVIORAL SCIENCES AND TREATMENT EVALUATION

Recommendation: APPROVAL
Priority Score: 123
Special Note:

30-HS INV.-CERTIFIED, NO IRG CONCERNS OR COMMENTS.
10-NO VERTEBRATE ANIMALS INVOLVED.

YEAR	REQUESTED	Pre	Post	RECOMMENDED	Pre	Post	GRANT PERIOD
06	173,010	0	6	120,575 ~~173,010~~	0	~~6~~ 5	
07	174,511	0	6	174,511	0	6	
08	176,161	0	6	176,161	0	6	
09	177,977	0	6	177,977	0	6	
10	179,974	0	6	179,974	0	6	

APPLICANT'S ABSTRACT

A. Purpose and Program Characteristics

This program provides postdoctoral training for M.D.s and Ph.D.s in behavioral sciences and treatment evaluation with a focus on developmental, psychological, cognitive, and social factors related to mental disorders and maladaptive behavior. The two-year training program seeks to familiarize postdoctoral fellows with basic theory, knowledge, and investigative techniques in clinical research and treatment evaluation, and in such related areas as developmental and cognitive psychology, behavioral medicine, social and community psychiatry, and psychiatric epidemiology and biostatistics. The goal of the program is to train fellows to follow research and teaching careers in which they will play a central role as independent investigators in clinically oriented evaluation research on mental disorders and maladaptive behavior.

Training procedures include lectures, seminars, workshops, and conferences, and individually tailored, faculty-supervised collaborative research experiences. Faculty members have research laboratories and/or research oriented specialty clinics that are available to fellows in the program. In addition, fellows participate in seminars on clinical and evaluation research as they relate to the developmental and social/psychological basis of mental disorders and maladaptive behavior, a workshop on research methodology and biostatistics, and research colloquia/Grand Rounds that involve outside speakers.

FINAL ACTION: MAY 19-21, 1986

NIH 1502-6
REV 2-80

SUMMARY STATEMENT - TRAINING

(Privileged Communication)

RERA
Application Number: 2 T32 MH14647-09A2
AG
EP

Review Group: RERA BIOLOGICAL & NEUROSCIENCES SUBCOMM.
Meeting Date: FEB/MARCH 1986

Program Director: SHEPPARD, JOHN R
Degree: PHD
Position: PROFESSOR
Organization: UNIVERSITY OF MINNESOTA
City, State: ST PAUL, MN
Requested Start Date: 07/01/86

Training Area: RESEARCH TRAINING — BEHAVIORAL GENETICS

Recommendation: APPROVAL
Priority Score: 115
Special Note:

32-HS INV.-CERTIFIED, IRG COMMENTS.
32-ANIMALS INV.-IRG COMMENTS.

YEAR	REQUESTED			RECOMMENDED		
		Pre	Post		Pre	Post
09A2	231,876	8	6	162,267	6	4
10	235,395	8	6	165,411	6	4
11	239,442	8	6	169,026	6	4
12	244,096	8	6	173,188	6	4
13	249,448	8	6	177,965	6	4

APPLICANT'S ABSTRACT: This application requests continuing support for our Behavioral Genetics training program. Both pre- and postdoctoral students are served by the program which, during its 20 year history has focused on human behavioral genetics. Both normal and pathological traits are being studied with particular focus upon the genetics and biology of aging and genetic toxicology. Instrumental to these investigations is the application of twin and family study methods which are made possible by the immediate availability of established twin populations, large documented pedigrees for various pathological conditions, and expertise in the area of genetic epidemiology for the design and analysis of such studies.

The program's purpose is the preparation of scientists with undergraduate and graduate degrees in the social sciences (primarily psychology) or biological sciences (primarily genetics) for careers requiring research experience and an education in both the behavioral and genetic disciplines. Graduates have found careers in academia, industry and public service.

A unique combination of academic features is offered by our program: Focus on human behavioral genetics, strong faculty representing the major departmental subdivisions of psychology, genetics, and psychiatry, close proximity of the cooperating collegiate units, supportive University administration, and several long term collaborative research projects which provide immediate research experience and continuing opportunities for trainees.

Predoctoral trainees major in Psychology and minor in Genetics or vice versa, with supporting courses in neuroscience, biochemistry or statistics. In psychology, the emphasis is on individual differences, psychopathology, personality and psychological measurement. In genetics, emphasis is placed on cyto-, molecular, pharmaco- and population/quantitative genetics. Behavioral

FINAL ACTION: May 19-21, 1986

genetics courses, seminars and research presentations help to integrate these diverse areas. Predoctoral trainees serve short apprenticeships in several laboratories in order to gain experience with different research strategies. Eight predoctoral traineeships are requested. Postdoctoral trainees (both Ph.D. and M.D.) work full time with a mutually identified professor on a specific research project. Four postdoctoral and two psychiatry resident fellowships are requested.

The primary training facilities are in the Dight Laboratories, a research unit in the College of Biological Sciences. Included are offices for faculty/students, a seminar room, a library, storage for family history records, a cell culture facility, a cytogenetic, a genetic epidemiology, and several biochemical genetic laboratories.

Facilities for subject observation and experimental studies are provided by Psychology, Psychiatry and the Institute of Child Development. There are ample audio-visual facilities, psychophysiological equipment, animal behavior facilities, and excellent computer/calculating facilities.

RESUME: This is a second revision of an application for continued support of a predoctoral and postdoctoral training grant in human behavioral genetics at the Dight Institute of the University of Minnesota. Dr. John R. Sheppard, Director of the Institute, is the program director.

As did the last reviewers, the Committee feels that the faculty, students, and program are excellent. The last application was recommended for approval at very high priority but was not funded. Based on the changes that have occurred over the past year and the uniqueness of the program, as well as the importance of the behavioral genetics approach to understanding the human condition, the Committee unanimously and enthusiastically recommends approval of the application for the requested period of five years, with a reduction in the proposed number of stipends to six predoctoral and four postdoctoral.

CRITIQUE:

Faculty: In general, this is an excellent productive faculty with a good track record in research training and research project support. There is clear evidence of interdisciplinary collaboration among them. This review focuses on the additions to the faculty since the last review one year ago. The last critique dealt with the question of general faculty and no losses have been suffered since then. Behavioral genetics has been strengthened within the program by Dr. Depue and Dr. Bouchard, and the even more recent appointments of Dr. Duester and Dr. Conti-Tronconi. Other new faculty added in 1985 include Dr. August and Dr. Grove in psychology, Dr. McGue and Dr. Iacono in human genetics, Dr. Shaw in genetics and cell biology and Dr. Kater as a neurochemical leader for the Dight Laboratories with an appointment in pathology. Dr. Sheppard remains the program director in this application and his efforts and energy on behalf of this program remain outstanding. He is committed to making this program continue to work and grow even beyond the accomplishments of the last twenty years. The research contributions of the faculty continue to be on the forefront of human behavioral genetics and clearly this grant is the focus which holds the various disciplines together.

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 P50 MH35976-07
SRCM GROUP: 09 DUAL:
REVIEW GROUP: SPECIAL REVIEW COMMITTEE - NIMH

MEETING DATE: JUN 30-July1,87 PRG CL CD: CR DUAL PRG CL CD:

INVESTIGATOR: FRIEDHOFF, ARNOLD J DEGREE: PHD
DEPARTMENT: PSYCHIATRY

ORGANIZATION: NEW YORK UNIVERSITY MEDICAL CENTER RFA:

CITY, STATE: NEW YORK NEW YORK 10016 REQ. START DATE: 02/01/88

PROJECT TITLE: MHCRC FOR ORGANIC AFFECTIVE AND SCHIZOPHRENIC DISORDERS

RECOMMENDATION: APPROVAL PRIORITY SCORE: 153

SPECIAL NOTE: 30-HS INV.-CERTIFIED NO IRG CONCERNS OR COMMENTS
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
07	593,752	593,752
08	620,764	620,764
09	645,024	645,024
10	677,536	
11	714,723	

426%:
25294

APPLICANT'S ABSTRACT:

The Mental Health Clinical Research Center at NYU has provided a new organizational structure in the medical school that has enabled investigators to work together to improve our understanding and treatment of three major psychiatric illnesses: organic mental syndrome, affective disorders and schizophrenia.

Specifically, the Center has been organized in order to: (1) provide strong and effective leadership in the development of collaborative studies involving clinical investigators and basic scientists, (2) develop control procedures to insure that the best possible research is carried out, (3) provide Core resources to investigators in the Center in order to facilitate research design, diagnostic and behavioral assessment, statistical analysis and access to a computer facility, (4) provide Core laboratories to investigators in the Center so that specialized tests and procedures can be carried out in conjunction with clinical and basic science studies, (5) provide seed money in order to encourage quality pilot proposals, particularly by young investigators, (6) facilitate recruitment of normal volunteers, symptomatic volunteers and patient volunteers, (7) provide a setting in which both didactic and preceptor type training can be provided to students, postgraduates and other relevant groups, (8) provide an institutional framework for the training and development of young investigators, (9) establish a resource, in the designated areas of interest of the Center, for the school, the community and the broader scientific community and (10) carry out periodic rigorous external review and criticism in order to maintain the most effective leadership and quality of scientific research.

FINAL ACTION: SEPTEMBER 14 - 16, 1987

SUMMARY STATEMENT
(Privileged Communication)

Application Number: 1 R01 MH40015-01
Dual Review: AG
Review Group: LIFE COURSE & PREVENTION RESEARCH REVIEW COMMITTEE
RE-S
Meeting Date: OCTOBER 12, 1984

Investigator: KANE, JOHN M
Degree: MD BA
Position: DIRECTOR
Organization: LONG ISLAND JEWISH-HILLSIDE MED CTR
City, State: NEW HYDE PARK, N Y
Requested Start Date: 12/01/84

Project Title: PROSPECTIVE STUDY OF TARDIVE DYSKINESIA IN THE ELDERLY

Recommendation: APPROVAL
Priority Score: 156
Special Notes:

30-HS INV.-CERTIFIED, NO IRG CONCERNS OR COMMENTS.
10-NO VERTEBRATE ANIMALS INVOLVED.

YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED	PREVIOUSLY RECOMMENDED	GRANT PERIOD
01	147,106	147,106		
02	152,334	152,334		
03	160,267	160,267		
04	166,757	166,757		

APPLICANT'S ABSTRACT:

Age has been the risk factor most consistently associated with the development of tardive dyskinesia (TD). Increased rates of prevalence, severity and persistence of TD are associated with increasing age. Interpretation of true prevalence rates is complicated by reports of idiopathic spontaneously occurring movement disorders in the elderly. Additionally, elderly persons may suffer from serious medical conditions which may predispose them to develop drug-induced or spontaneous movement disorders.

To evaluate the incidence, outcome of and vulnerability to movement disorders in the elderly, 400 patients over the age of 55 will be evaluated prospectively while receiving neuroleptic treatment. Half the sample will be starting on neuroleptics for the first time at study entry and half will have had prior neuroleptic exposure; however, these will have been neuroleptic-free for at least one month. After a drug-free baseline assessment, patients will be reexamined every three months for 4 years. Medication will be withdrawn every six months to assess covert TD. Patients meeting criteria for abnormal movement case definition will receive a medical and neurological work-up to identify possible alternative causes of the movement disorder.

FINAL ACTION: February 25-27, 1984

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 K02 MH00510-06
MHK GROUP: DUAL:
REVIEW GROUP: RES SCIENTIST DEV REVIEW COMM
MEETING DATE: FEB. 16-18, 1989 PRG CL CD: NR-B DUAL PRG CL CD:
INVESTIGATOR: FRIEDMAN, DAVID DEGREE: PHD
ORGANIZATION: COLUMBIA UNIVERSITY RFA:
CITY, STATE: NEW YORK NY REQ. START DATE: 09/01/89
PROJECT TITLE: COGNITIVE BRAIN POTENTIALS: NORMAL AND ABNORMAL
RECOMMENDATION: APPROVAL PRIORITY SCORE: 140
SPECIAL NOTE: 30-NS INV.-CERTIFIED NO IRG CONCERNS OR COMMENTS
10-NO LIVE VERTEBRATE ANIMALS INVOLVED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
06	57,150	57,150
07	57,150	57,150
08	57,150	57,150
09	57,150	57,150
10	57,150	57,150

APPLICANT'S ABSTRACT:

This is a competing request for renewal of an ADAMHA Level II RSDA. Event-related brain potentials (ERPs), and concomitant behavioral indices will be recorded from normal subjects during studies of cognitive development and aging and from two clinical populations, schizophrenics and patients with Alzheimer's disease, who display specific cognitive deficits. It is expected that the ERP measures will provide insights into the hierarchy, sequencing and timing of information processing that are much more difficult to infer from behavioral data alone. The main goal in the study of normal subjects is a description and analysis of the changes in the electrical activity of the normally aging brain, with a view toward a better understanding of age-related changes in semantic processing and memory function. In the study of schizophrenia and Alzheimer's disease, the cognitive ERPs will be elicited during tasks designed specifically to tap the functions for which these disordered subjects show deficits. Comparison of the disordered groups' ERPs with those recorded from normal samples will allow an assessment of which stages of information processing are deficient in these populations and should, in turn, allow more precise functional definitions of the endogenous ERP components. During the tenure of the award, the principal investigator will develop greater expertise in the application of topographical methods to the cognitive ERPs and, via collaboration and consultation, will gain additional knowledge in the area of risk research, in the application of cognitive methodology to development and aging, and in the application of ERP technology to patients with localized brain damage.

FINAL ACTION: MAY 22-23, 1989

(Privileged Communication)

Application Number 1 K01 MH00493-01A2
Dual Review

MHK
Review Group MHS SCIENTIST DEV REVIEW COMM
Meeting Date OCT. 30 - NOV. 1, 1985 AF-D

Investigator AVERY, DAVID H Degree MD
Position ASSOCIATE PROFESSOR
Organization UNIVERSITY OF WASHINGTON
City, State SEATTLE, WA Requested Start Date 04/01/86

Project Title EEG SLEEP AND TEMPARATURE RHYTHM IN PRIMARY DEPRESSION

Recommendation APPROVAL (UNANIMOUS) Priority Score 144
Special Note Outside Opinion
30-HS INV.-CERTIFIED, NO IRG CONCERNS OR COMMENTS.
10-NO VERTEBRATE ANIMALS INVOLVED.

Project Year	Direct Cost Requested	Direct Cost Recommended	Indirect Cost Recommended	Grant Period
01A2	56,570	56,570		
02	58,864	58,864		
03	64,864	64,864		
04	64,864	64,864		
05	64,864	64,864		
	310,026	310,026		

APPLICANT'S ABSTRACT:

With this ADAMHA RSDA, I will develop expertise in methodological and statistical aspects of circadian rhythm and EEG sleep analysis while conducting research on patients with major depression. The first study will study these variables in elderly (age>54) subjects with major depression (N=50), dementia (Alzheimer's type) (N=50), and healthy controls (N=50) in a clincial research center setting. Results from the rectal and oral temperature studies will be compared with EEG sleep results using correlational analyses. In addition, discriminate function analyses will test the ability of these variables to differentiate the groups. The sensitivity and specificity of the best predictor variables will be calculated. In the second study subjects (ages 18-70) with major depression (N=50) and healthy controls (N=50) will have frequent oral temperatures taken in an outpatient setting. Preliminary data suggest that oral temperatures are able to detect abnormalities in temperature variables (best-fitting tau, amplitude, mesor, and acrophase) in depressed subjects and that there is heterogeneity among these subjects. These variables and others will be compared in the depressed patients, while depressed and when recovered, and in controls. Preliminary data also suggest possible subtypes based on these variables. This study will explore these possible temperature rhythm subtypes and their relation to clinical subtypes and other clinical factors. In a test of the phase-advance hypothesis of depression, the third study will "unmask" the rectal temperature rhythm through sleep deprivation in 10 elderly melancholic patients and 10 elderly controls who had been studied in the first study. In the fourth study, the melatonin rhythm, rectal temperature rhythm, and EEG sleep will be studied in 10 patients with seasonal affective disorder, 10 patients with nonseasonal melancholia, and 10 nondepressed age and sex-matched controls.

FINAL ACTION: March 10-12, 1986

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 R01 MH42579-01A1

PCB 2 GROUP: DUAL:

VIEW GROUP: CLINICAL BIOLOGY SUBCOMMITTEE

MEETING DATE: JUNE 8-10, 1988 PRG CL CD: AF DUAL PRG CL CD:

INVESTIGATOR: BUTTERS, NELSON M DEGREE: PHD

ORGANIZATION: UNIVERSITY OF CALIFORNIA, SAN DIEGO RFA:

CITY, STATE: LA JOLLA CALIFORNIA REQ. START DATE: 07/01/88

PROJECT TITLE: COGNITIVE AND MRI CHANGES IN AFFECTIVE DISORDERS

ECOMMENDATION: APPROVAL PRIORITY SCORE: 122
SITE VISIT PERCENTILE SCORE: 3.3

SPECIAL NOTE: 30-HS INV.-CERTIFIED NO IRG CONCERNS OR COMMENTS
10-NO LIVE VERTEBRATE ANIMALS INVOLVED

B.p + U.p

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
01A1	185,352	185,352
02	214,294	214,294
03	208,001	208,001
04	194,012	
05	161,898	

APPLICANT'S ABSTRACT:

The proposed study will use clinical, neuropsychological and neuroradiological techniques to characterize cognitive deficits associated with unipolar and bipolar affective disorder. Specifically, the cognitive deficits associated with major depression and their longitudinal course in bipolar and unipolar affective disorder will be studied. The trait affiliation will be obtained through follow-up retesting and reimaging. The association of these cognitive abnormalities with MRI determined brain abnormalities will be investigated as will the course of the MR abnormalities themselves. To fully characterize the cognitive deficits associated with affective disorder, the extent to which they are similar to cognitive deficits in Huntington's Disease and dissimilar to those of Alzheimer's Disease will be determined. Comparison of structural findings between patients with affective and neurologic illness will be conducted. Based on pilot data and reports of previous investigators, it is predicted that bipolar, and possibly unipolar affective disorder, will be associated with persistent, mild cognitive deficits similar to the subcortical dementia of Huntington's Disease and will be present in conjunction with specific MR abnormalities. The specific MR abnormalities in the affective disorder patient are predicted to be decreased size of neostriatal structures and a higher rate of subcortical signal hyperintensities.

FINAL ACTION: September 14-16, 1988

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 T32 MH15144-12
PCB 2 GROUP: DUAL:
REVIEW GROUP: CLINICAL BIOLOGY SUBCOMMITTEE

MEETING DATE: OCTOBER 19-21, 1988 PRG CL CD: AF DUAL PRG CL CD:

PROGRAM DIRECTOR: RIEDER, RONALD O DEGREE: MD

ORGANIZATION: NEW YORK STATE PSYCHIATRIC INSTITUTE
CITY, STATE: NEW YORK, NEW YORK
REQ. START DATE: 12/01/88

TRAINING AREA: RESEARCH TRAINING: AFFECTIVE & RELATED DISORDERS
PRIORITY SCORE: 125
RECOMMENDATION: APPROVAL

SPECIAL NOTE: 30-HS INV.-CERTIFIED NO IRG CONCERNS OR COMMENTS
10-NO LIVE VERTEBRATE ANIMALS INVOLVED

YEAR	REQ. DIRECT	REC. DIRECT	GRANT PERIOD
12	291,008	291,008	
13	291,008	291,008	
14	291,008	291,008	
15	291,008	291,008	
16	291,008	291,008	

APPLICANT'S ABSTRAST:

This is a research training program, primarily designed for psychiatrists, to train them for research on the major mental disorders -- affective disorders, anxiety disorders, eating disorders, personality disorders, memory disorders and schizophrenia. Used for this training are the extensive research facilities and faculty of the Department of Psychiatry at Columbia College of Physicians and Surgeons (P&S), which, in conjunction with its major research affiliate, the New York State Psychiatric Institute (PI), is currently the largest recipient of ADAMHA research funds. Training sites include PI, Presbyterian Hospital, and a division of Creedmoor Psychiatric Center which is directed by Columbia faculty. Trainees are selected from many applicants who are completing, or who have recently completed, psychiatric residency training, though the program is also open to other physicians (e.g., neurologists) and psychologists. Many trainees have participated in research during their medical school or residency years, but have had no formal training in research. There are 3 major components to the training. First, a preceptorial component, in which the trainee immediately begins participation in the ongoing research projects of the preceptor's research group, thereby learning basic research skills (e.g., standardized assessment) and the research literature in a certain area. Simultaneously, the trainee develops, under guidance, an independent research protocol, often conducted on the same clinical research subjects. The second component is the didactic component -- training in statistics, research design, and in modern research techniques (e.g., genetic linkage analysis, challenge studies). The final component is a basic science component, in which the trainee learns about the principles and application of laboratory techniques from a collaborative researcher at PI or P&S (e.g., analytic psychopharmacology, brain imaging, molecular or statistical genetics). Through a combination of federal (NIMH) and NYS funds, this established training program currently supports 8 trainees for at least 2, and usually 3 years of research training. Given the prior success of the program in attracting and training psychiatric researchers, expansion of the program from 8 to 10 fellows is proposed.

FINAL ACTION: February 6-7, 1989

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SUMMARY STATEMENT - TRAINING

(Privileged Communication)

	TDAB	Application Number:	2 T32 MH17140-04 AF
Review Group:	TDAB PSYCHOPS BIO & PHYS TREAT SUBCOMM		
Meeting Date:	FEBRUARY 20 - 21, 1986		
Program Director:	WEINER, HERBERT	Degree:	MD
Position:	PROFESSOR OF PSYCHIATRY		
Organization:	UNIVERSITY OF CALIFORNIA LOS ANGELES		
City, State:	LOS ANGELES CALIFORNIA	Requested Start Date:	07/01/86
Training Area:	RESEARCH TRAINING PSYCHOBIOLOGICAL SCIENCES		
Recommendation:	APPROVAL	Priority Score:	116
Special Note:	PROJECT SITE VISIT 30-HS INV.-CERTIFIED, NO IRB CONCERNS OR COMMENTS. 30-ANIMALS INV.-VERIFIED, NO IRB CONCERNS OR COMMENT		

YEAR	REQUESTED	RECOMMENDED
04	111,706	170,898
05	108,094	171,298
06	110,378	172,778
07	111,108	174,348
08	121,813	176,013
	4 Post-Docs	6 Post-Docs

APPLICANT'S ABSTRACT:

A. Purpose and Program Characteristics: The program proposes t train M.D. psychiatrists upon completion of post graduate year (PG-4) in psychiatr, and Ph.D. behavioral scientists (psychologists, or neuroscientists) following completion of their degrees. The research areas to be stressed in the program are the sciences basic to understanding major mental and behavioral disorders of adult life; that is the major psychoses, the addictions with alcohol and other substances of abuse, the psychosomatic and psychophysiologic disorders, using psychobiologic techniques. Training will stress the development of skills combining psychosocial and the psychological techniques of psychopharmacology, psychophysiology, psychoendocrinology, psychochemistry and psychoimmunology. The program will only choose trainees who have a specific, focused research idea or protocol in mind. They will assigned to the appropriate preceptor to work "at the bench" for a period of 2 years. The didactic work will consist of 2 seminars, one in which the trainee will discuss his/her proposal (and progress in it) with his peers, the appropriate members of the training faculty and his/her preceptor; the second, in which the relevant literature of the trainees' areas of research are discussed in depth. In addition, trainees may elect one course per quarter from a large number of courses at UCLA or another local university. This course will be specifically selected to enhance the trainee's knowledge in his particular area. The adjunct faculty (see below) will provide training in specific techniques, for example for the assay of hormones, neurotransmitters and drugs for the study of sleep or other biological rhythmic processes, for epidemiologic or evaluation studies in affiliated Departments of UCLA and its Medical School. The Department of Psychiatry maintains a broad variety and number of funded research programs (amounting $21,160,518) per year - and at various training sites in psychopharmacology, psychophysiology, psychoendocrinology, sleep disorders, alcoholism, schizophrenia, affective disorders, and psychosomatic disease. It has strong working relationships with the Brain Research Institute, the Departments of Medicine, Neurology, Psychology, the Cancer Center. Its recruitment sources for trainees are abundant. The number of otential preceptors (core faculty) are 23, and of adjunct faculty are 9. The program will llow trainees to be exposed to a multidisciplinary, biomedical, investigative environment with dy access to many ill persons in a Health Sciences Center and affiliated institutions, which ess investigation, and contain many active laboratories, and have a tradition of collaborative arch.

FINAL ACTION: MAY 19 - 21, 1986

BASIC RESEARCH RELATED TO AGING

PROJECT ABSTRACTS

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 R01 MH37134-07A1
SPN 2 GROUP: 9E DUAL:
REVIEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: FEB./MARCH 89 PRG CL CD: NR-N DUAL PRG CL CD:

INVESTIGATOR: BAILEY, CRAIG H DEGREE: PHD

ORGANIZATION: NEW YORK STATE PSYCHIATRIC INSTITUTE RFA:

CITY, STATE: NEW YORK, NEW YORK REQ. START DATE: 07/01/89

PROJECT TITLE: MORPHOLOGICAL BASIS OF SYNAPTIC PLASTICITY

RECOMMENDATION: APPROVAL PRIORITY SCORE: 115
PERCENTILE SCORE: 14.7

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
10-NO LIVE VERTEBRATE ANIMALS INVOLVED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
07A1	135,307	120,338
08	142,312	126,592
09	149,678	133,173
10	157,428	140,099
11	165,581	147,385

APPLICANT'S ABSTRACT:

How information is stored within the brain is an issue central to the study of behavior. Of particular importance is the functional relationship between synaptic structure and the changes in synaptic effectiveness that accompany learning and memory. To address this problem we propose to examine the nature, extent and time course of the morphological events at identified synapses that accompany elementary forms of learning and memory and explore the role such structural alterations may play in initiating and maintaining the changes in synaptic function that underlie these behavioral modifications. Toward this end we plan to use a model system, the gill-withdrawal reflex of the marine mollusc *Aplysia californica* in which several forms of learning and memory have been studied to advantage on both the cellular and molecular level. We have recently exploited this system to examine the morphological basis of short- and long-term habituation and sensitization. Using horseradish peroxidase (HRP) to label the presynaptic terminals of identified sensory neurons (a critical site of plasticity for both forms of learning) and complete serial reconstruction to analyze the total number and fine structure of synaptic contacts, we have found that long-term memory is accompanied by structural alterations on two levels of synaptic organization: 1) changes in the number, size, and vesicle complement of focal regions of membrane specialization (active zones) of the synapse, and 2) a parallel but more dramatic and global trend involving modulation of the total number of synaptic varicosities. In contrast, the morphological correlates of short-term memory in *Aplysia* are restricted to shifts in vesicle populations associated with sensory neuron active zones. These findings provide the first direct evidence that behavioral modification produces structural changes at the level of identified synapses critically involved in learning and suggest a clear difference in the morphological events that accompany memories of differing durations. To explore these issues in more detail, we now plan to examine the time course and underlying biochemical events responsible for the morphological changes at sensory neuron synapses that accompany both short- and long-term memory. A temporal analysis should allow us to determine which classes of structural change are necessary for the acquisition and maintenance of memory and an analysis of mechanism will aid in establishing a more causal relationship between synaptic architecture and the learning process. The approaches we have developed and the model system we plan to use provide the required specificity to address these problems directly and should increase our understanding of how the functional architecture of the synapse is related to its plastic capabilities.

FINAL ACTION: May 22-23, 1989

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 K02 MH00343-06A1

MHK GROUP: DUAL:

REVIEW GROUP: RES SCIENTIST DEV REVIEW COMM

MEETING DATE: October 28-29, 1987 PRG CL CD: NR DUAL PRG CL CD:

INVESTIGATOR: BERGER, THEODORE W DEGREE: PHD
PROFESSOR OF BEHAVIORAL NEUROSCIENCE

ORGANIZATION: UNIVERSITY OF PITTSBURGH RFA:

CITY, STATE: PITTSBURGH PENNSYLVANIA REQ. START DATE: 04/01/88

PROJECT TITLE: LIMBIC CORTICAL BASES OF ASSOCIATIVE LEARNING

RECOMMENDATION: APPROVAL (UNANIMOUS) PRIORITY SCORE: 108

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
06A1	50,600	50,600
07	50,600	50,600
08	50,600	50,600
09	50,600	50,600
10	50,600	50,600

APPLICANT'S ABSTRACT:

This application is in request of a ADAMHA Research Scientist Development Award. The research supported by this Award will focus on neural plasticity that develops in the hippocampus as a result of behavioral learning, using classical conditioning of eyeblink in rabbit as a model system. Three specific issues with respect to this plasticity will be investigated. First, we will determine the multi-synaptic anatomical pathways through which learning-induced changes in the activity of hippocampal pyramidal neurons affects the cerebellum--a brain structure known to be involved in the formation of the conditioned eyeblink response. Second, we will use nonlinear systems analytic techniques to characterize functional properties of the hippocampus expressed only at the network level, i.e., properties emerging from the coordinated activity of all its subpopulations of neurons acting as a system. We then will investigate how these system properties are altered during eyeblink conditioning. Finally, we will investigate the contribution of brainstem noradrenergic and serotonergic inputs to changes in pyramidal cell activity that develop during classical conditioning.

FINAL ACTION: February 8-10, 1988

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 R01 MH31862-11
BPN 2 GROUP: DUAL:
REVIEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: FEB./MARCH 88 PRG CL CD: NR DUAL PRG CL CD:

INVESTIGATOR: BIRD, EDWARD D DEGREE: MD

ORGANIZATION: MC LEAN HOSPITAL (BELMONT, MA) RFA:

CITY, STATE: BELMONT MASSACHUSETTS REQ. START DATE: 08/01/88

PROJECT TITLE: BRAIN TISSUE RESOURCE FOR NEUROPSYCHIATRIC RESEARCH

RECOMMENDATION: APPROVAL PRIORITY SCORE: 117

SPECIAL NOTE: 30-HS INV.-CERTIFIED NO IRG CONCERNS OR COMMENTS
10-NO LIVE VERTEBRATE ANIMALS INVOLVED
SITE VISIT

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
11	475,961	380,501
12	437,895	355,496
13	585,537	388,396
14	617,653	407,008
15	668,972	444,673

APPLICANT'S ABSTRACT:

The Brain Tissue Resource Center (BTRC) was established in 1978 to promote neurochemical research in two disorders - Huntington's disease (HD) and schizophrenia. At that time, lay organizations alerted their members in order to promote brain donations. Over 500 HD brain donations have been made by families having this autosomal dominant disorder. Only in the last year have a substantial number of brain donations been made by the next of kin of persons dying with schizophrenia. This recent increase is largely due to the formation of a national organization called the Alliance for the Mentally Ill (AMI) which is committed to promoting basic research into mental illness.

The BTRC has more recently been collecting brain tissue from other neuropsychiatric disorders. A neuropathological examination is carried out on one half of every brain in order to confirm a diagnosis or rule out any pathology in a normal control brain. The remaining half is frozen and then dissected into as many as 60 regions which are then stored and later distributed to neuroscientist, requesting tissue. Brain tissues have been collected from over 49 states and 6 countries and then dissected and distributed to 200 neuroscientists in 30 states and 5 countries.

The BTRC also conducts research in order to improve methods in the collection and dissection of brain tissue. Over the BTRC's nine-year period, there have been over 300 publications written by the BTRC staff and the investigators utilizing the brain tissue for their studies. These published findings cover 15 different neuropsychiatric disorders as well as much new basic data found in the "normal" human brain. These discoveries have opened a new frontier into the study of a number of human disorders of the brain.

The BTRC has been supported by NIMH, NINCDS, the Hereditary Disease Foundation, The Wills Foundation, the Huntington's Disease Foundation, and the Scottish Rite Foundation's Schizophrenia Research Program.

FINAL ACTION: May 16-18, 1988

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 R01 MH40698-04
BPN 2 GROUP: DUAL:
VIEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: FEB./MARCH 88 PRG CL CD: NR DUAL PRG CL CD:

INVESTIGATOR: BRAUTH, STEVEN E DEGREE: PHD

ORGANIZATION: UNIVERSITY OF MARYLAND COLLEGE PK CAMPUS RFA:

CITY, STATE: COLLEGE PARK MARYLAND REQ. START DATE: 07/01/88

PROJECT TITLE: NEURAL BASIS OF ASSOCIATIVE LEARNING

RECOMMENDATION: APPROVAL PRIORITY SCORE: 116

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
04	62,140	62,140
05	68,354	68,354
06	75,190	75,190
07	82,708	82,708

APPLICANT'S ABSTRACT:

This research program aims to examine the neuroanatomical foundations of vocal learning in budgerigars as a model for studying the neural basis of interactions between innate, constitutional factors and experiential learning during postnatal development. Previous results have shown that vocal learning depends upon both innate factors and experiential learning in this species since the acquisition of a narmal vocal repertoire requires exposure to an appropriate external model during postnatal development. Neuroanatomical experiments are proposed to further study the pathways by which sensory feedback can influence vocal motor centers as well as the pathways by which vocal motor centers can cue the sensory systems. Behavioral experiments using multidimensional scaling and assessment of vocal plasticity will pinpoint the role of these anatomical pathways in guiding and shaping learned vocal responses by evaluating the effects of lesions in these pathways at different points during postnatal development.

FINAL ACTION: May 16-18, 1988

SUMMARY STATEMENT
(Privileged Communication)

Diane
Lawrence · PO

APPLICATION NO: 2 R01 MH39230-03

[illegible]
[illegible]

REVIEW GROUP: PYB GROUP: DUAL: AA
PSYCHOBIOLOGY & BEHAVIOR RES REV COMM

MEETING DATE: FEB./MARCH 89 PRG CL CD: NR DUAL PRG CL CD: AN

INVESTIGATOR: BRUSH, F ROBERT DEGREE: PHD

ORGANIZATION: PURDUE UNIVERSITY WEST LAFAYETTE RFA:

CITY, STATE: WEST LAFAYETTE, INDIANA REQ. START DATE: 08/01/89

PROJECT TITLE: PSYCHOBIOLOGICAL/GENETIC ANALYSIS OF AVOIDANCE LEARNING

RECOMMENDATION: APPROVAL PRIORITY SCORE: 127
PERCENTILE SCORE: 30.0

OUTSIDE OPINION
SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
03	104,964	81,175
04	96,146	81,918
05	104,282	89,376
06	99,695	
07	111,307	

APPLICANT'S ABSTRACT:

The Syracuse strains of rats have been selectively bred for either high (SHA) or low (SLA) levels of avoidance responding in two-way shuttlebox. They have been found to differ in a variety of other behavioral, anatomical, and physiological characteristics in addition to the profound difference in avoidance behavior. The genetic architecture of these strains is to be determined by completing an analysis of linkage in F_2, B_H, and B_L populations, by the development of recombinant inbred strains, and by rederivation with a control line from F_6 animals. A variety of Pavlovian and operant conditioning procedures will be used to analyze the ways in which the animals of the two strains differ in their affective, attentional and temporal-processing capacities. The role of the hippocampus in the phenotypic expression of these genotypes will be analyzed using in vivo hippocampal long-term potentiation and lesions of the hippocampus. The strain difference in preference for oral ethanol will be analyzed by determining the reinforcing or aversive post-ingestional effects of ethanol and by measuring the activity and isozyme patterns of the liver enzymes involved in ethanol metabolism. The strain differences in the hypothalamic-pituitary-adrenocortical (HPA) axis will be analyzed by experiments on the half-life of corticosterone and by in vitro determinations of the responsivity of the various levels of the HPA. The experiments make use of these genetic models to increase our understanding of the psychobiological mechanisms underlying individual differences in responsivity to stress and in how individuals differ in their capacity to cope with stressful situations. Similarly, the experiments will increase our understanding of the genetic and experiential determinants of alcoholism and other psychopathologies.

FINAL ACTION: May 22-23, 1989

SUMMARY STATEMENT
Privileged Communication

2 R01 MH04005-25

NPUB
NIMH NEUROPSYCHOLOGY RESEARCH COMMITTEE NP-8
JUNE 1985

DIAMOND, IRVING T PHD

DUKE UNIVERSITY
DURHAM NORTH CAROLINA 12/01/85

BEHAVIORAL ANALYSIS OF SENSORY NEOCORTEX

APPROVAL 110

10-NO HUMAN SUBJECTS INVOLVED.
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED.

25	160,080	147,170	144,170 (2% cut)	
26	166,520	153,690		
27	173,431	160,601		
28	180,757	169,927		
29	188,523	175,693		

APPLICANT'S ABSTRACT

The long term objective is to understand the relation [illegible] sensory and association areas of the neocortex. Since the neocortex is [illegible] of man, the research proposed promises to reveal the neural basis for [illegible] learning and cognition. The proposal is to continue using the tree shrew [illegible] as a model for higher primates. Earlier studies in this laboratory [illegible] the association visual cortex in Tupaia is the target of a sensory [illegible] in the tectum and relaying in the pulvinar nucleus. Tupaia provides [illegible] opportunity to learn more about the functional relation between the [illegible]-pulvinar and the geniculo-striate pathways because the behavioral deficits after ablation of either pathway alone is not incapacitating. Behavioral experiments are proposed to test acuity, pattern vision, and visual learning after ablation of the pulvinar nucleus or the striate cortex. Anatomical experiments are proposed to identify subdivisions of the pulvinar nucleus in Tupaia and their connections to cortex. Immunocytochemical and HRP transport studies are proposed to learn more about the projections of the reticular formation to the dorsal thalamus (and to the lateral geniculate and pulvinar nuclei, in particular). The use of antisera will identify terminals according to their neurotransmitter; serotonin, acetylcholine, and noradrenalin. Galago and Saimiri will be used in addition to Tupaia. Finally, it is proposed that the study of the laminar organization in striate cortex of lateral geniculate terminals be continued using the methods of intracellular injection and electron microscopy.

FINAL ACTION: SEPTEMBER 9-11, 1985 (continued)

BEST COPY AVAILABLE

SUMMARY STATEMENT
(Privileged Communication)

Application Number: 1 R01 MH41839-01

BPNB

Review Group: BPNB NEUROBEH SCI SUBCOMM MH-B

Meeting Date: FEB/MARCH 1986

Investigator: FIFKOVA, EVA

Degree: MD PHD

Organization: UNIVERSITY OF COLORADO

City, State: BOULDER, COLO

Requested Start Date: 07/01/86

Project Title: MOLECULAR MECHANISM OF LONG-TERM SYNAPTIC CHANGES

Recommendation: APPROVAL

Priority Score: 260

10-NO HUMAN SUBJECTS INVOLVED.
30-ANMLS INV.-VERIFIED, NO IRG CONCERNS OR COMMENT

01	107,367	76,535
02	116,609	82,695
03	128,268	90,963

APPLICANT'S ABSTRACT:

The principal goal of my research is to elucidate the molecular mechanism of the long term increase in synaptic efficacy in the dentate fascia. My previous work has indicated that morphometric changes in the postsynaptic spine may modulate activity of that particular synapse. In search for the mechanism of stimulation-induced long-term modifications in dendritic spines, we have assumed in analogy with non-neural tissues that this change could be related to actin, its regulatory proteins and free cytoplasmic Ca^{2+}. Actin conformation may be changed within fractions of a second after stimulation and the duration of such a change may be determined by the momentary conditions of the intracellular environment. For technical reasons it would be difficult to study directly the stimulation-related changes in the organization of the actin network. Therefore, we propose to study brain spectrin (fodrin). It is an actin-associated protein, which is intimately involved in the organization of actin filaments and capable of reorganization in response to stimulation in non-neural cells. Given the lack of information on the organization of brain spectrin that is essential for understanding of the function, we propose a series of immunoelectron microscope studies of brain spectrin in adult rats, in the course of development, and during enhanced synaptic activity, like long-term potentiation (LTP). Since LTP in the entorhinal-dentate system is currently the best physiological model of synaptic plasticity and an attractive candidate for the physiological mechanism of associative memory, it is essential to understand the mechanism of LTP. This phenomenon has all the characteristics that would be expected of an associative memory storage device and so has the locus of LTP origin. The second order sensory information converge to the entorhinal cortex and proceed to the dentate fascia where they may be modulated by the animal's state of consciousness. Conditioning stimuli increase the dentate granule cell activity without changing the activity of the entorhinal cortex. Senescent rats that suffer from a loss of dendritic spines in the dentate fascia were shown to be deficient in both LTP and spatial memory. Thus, dendritic spines may be implicated not only in the mechanism of LTP, but also in the mechanism of memory. Therefore, clarification of the molecular mechanism of morphometric changes in spines may provide a valuable tool in studies leading to the understanding of higher brain functions.

FINAL ACTION: May 19-21, 1986

BEST COPY AVAILABLE

SUMMARY STATEMENT
(Privileged Communication)

2 K05 MH25082-16

MHN

MHS SCIENTIST DEV REVIEW COMM MS-B

FEB. 19-21, 1986

FUSTER, JOAQUIN M MD

PROFESSOR

UNIVERSITY OF CALIFORNIA LOS ANGELES

LOS ANGELES CALIFORNIA 07/01/86

CORTICAL PROCESSES IN PERCEPTION AND MEMORY

APPROVAL (UNANIMOUS) 105

OUTSIDE OPINIONS

10-NO HUMAN SUBJECTS INVOLVED.

30-ANMLS INV.-VERIFIED, NO IRG CONCERNS OR COMMENT

16	56,250	56,250		
17	56,250	56,250		
18	56,700	56,700		
19	57,150	57,150		
20	57,150	57,150		

APPLICANT'S ABSTRACT:

The long-term objective of this research is to gain better understanding of the neural foundation of perception and memory. It is designed to provide new data concerning the processes by which the brain of the primate encodes, retains, and utilizes spatial information in behavior. The rationale is based on suggestive evidence that the posterior parietal cortex, in man and monkey, is the cortical substrate for spatial representation, a kind of dynamic neural map of extrapersonal space. The work will be conducted on macaques (Macaca mulatta). Some of the animals will be trained to distinguish objects by touch and to remember their shape for later recognition. The posterior parietal cortex will be cooled with implanted probes to test the effects of the reversible functional depression of that cortex on tactile (haptic) and crossmodal (haptic/visual) recognition performance. Nerve-cell activity will be investigated in the posterior parietal cortex while the monkey is engaged in those forms of performance; the principal aim is to determine the organization of cortical neurons representing stereognostic information. Other animals will be trained to distinguish and remember colored stimuli indicating the position of reward in the immediate space and future. The functional interactions between parietal and prefrontal cortex will be explored in these animals with a combination of cryogenic and microelectrode recording methods. The effects of cooling one cortical region on the neuronal activity in the other region will be analyzed, as will be the effects of cortical cooling on behavioral performance; the aim is to clarify the role of the normal interactions between the two cortices, presumably mediated by direct connections, in the spatial organization of behavior. Computer methods will be used for analyzing the effects of cryogenic depression as well as the patterns of neuronal discharge in task performance. The results of these experiments may help to elucidate the pathogenesis of disorders of the cerebral cortex in the human and to develop remedial measures for such disorders.

FINAL ACTION: May 19-21, 1986

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 R01 MH43353-01A1
BPN 2 GROUP: DUAL: NS
REVIEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: FEB./MARCH 88 PRG CL CD: MR DUAL PRG CL CD: DN

INVESTIGATOR: GONZALEZ-LIMA, FRANCISCO DEGREE: PHD

ORGANIZATION: TEXAS A & M RESEARCH FOUNDATION RFA:

CITY, STATE: COLLEGE STATION TX REQ. START DATE: 07/01/88

PROJECT TITLE: FUNCTIONAL MAPPING OF ASSOCIATIVE LEARNING IN BRAIN

RECOMMENDATION: APPROVAL PRIORITY SCORE: 113

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED
OUTSIDE OPINION

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
01A1	100,241	100,241
02	63,673	63,673
03	60,715	60,715
04	62,859	62,859

APPLICANT'S ABSTRACT:

The long-term goal is to localize the neural structures involved in associative learning of auditory signals. Experiments with 2-deoxyglucose (2-DG) techniques have been designed to functionally map the neural metabolic activity related to the specific components involved in auditory conditioning, namely auditory conditioned stimulus (CS), unconditioned stimulus reinforcers (US), and conditioned responses (CR). Are the learned properties of a sound differentially represented at various levels of the auditory pathway? Which are the brain structures related to attentional and learning processes involved in associative learning? Two experimental protocols have been designed to address these questions using a combination of classical and operant conditioning paradigms in conjunction with autoradiographic 2-DG techniques for the study of behavior in freely moving animals. The basic idea is to quantitate the uptake of 2-DG in the brain of rats during a variety of different behavioral conditioning and control situations. The proposed experiments manipulate the specific components involved in auditory conditioning (CS, US, CR) in an effort to discriminate the neural representation, in terms of 2-DG uptake, of these components independently or combined in paired and unpaired trials. In the first protocol two CSs will be compared, using a differential paradigm with reinforced (CS^+) and nonreinforced (CS^-) presentations, in order to discriminate the tonotopic from the reinforcing effects of CSs in terms of 2-DG uptake. The 2-DG method provides a tool that allows simultaneous visualization of tonotopic representation and functional activity in the auditory system. This method will be used also in a second protocol comparing the effects of identical CS-US pairings on the brains of four groups of rats: performing animals trained to bar press for reward during a sound signal (discriminative group), or bar pressing regardless of sound (nondiscriminative group), and rats yoked to the above groups and subjected to paired CS-US (classical group) and unpaired CS-US (control group), respectively. It is expected that comparisons using complementary stimulus-response conditions will serve to elucidate the neuroanatomical structures related to the specific components involved in auditory conditioning. The most important outcome of the proposed research would be the identification and functional mapping of rat brain structures responsible for the associative learning and memory of auditory stimuli.

FINAL ACTION: May 16-18, 1988

ADMINISTRATIVE SUMMARY SHEET

APPLICATION NO: 2 R01 MH35321-07

REVIEW GROUP:	BPN2 BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE	
MEETING DATE:	FEB/MAR 89 PRG CL CD: NR-N	
INVESTIGATOR: DEPARTMENT:	GREENOUGH, WILLIAM T. PSYCHOLOGY	DEGREE: PHD
ORGANIZATION:	UNIVERSITY OF ILLINOIS	RFA:
CITY, STATE:	CHAMPAIGN, ILLINOIS	REQ. START DATE: 08/01/89
PROJECT TITLE:	STRUCTURAL SUBSTRATES OF SYNAPSE PLASTICITY	
RECOMMENDATION:	APPROVAL	PRIORITY SCORE: 116
SPECIAL NOTE:	10 - NO HUMAN SUBJECTS INVOLVED 30 - ANIMALS INVL.-NO IRG COMMENTS OR CONCERNS NOTED	

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED	RESTORATION REQUESTED
07	65,113	65,113	65,113
08	64,781	64,781	64,781
09	68,810	68,810	68,810
10	71,298		71,298
11	74,803		

PROGRAM STAFF COMMENTS:

Program staff concurs with Dr. Greenough's position that additional time is justified in order for him to pursue the proposed work. The only major concerns of the IRG involved the electrophysiological studies of current source density (CSD) analysis. It is clear that those experiments not involving CSD analysis will require more than 3 years. Therefore, Program staff recommends restoration of the -10 (4th) year at the requested amount. Review staff concurs with this recommendation. It should additionally be noted that with the concurrence of both Drs. Bivens and Stamper this application is being simultaneously nominated for a Merit Award since both Review and Program staff agree that the application should be approved for 4 years of funding.

FINAL ACTION: MAY, 1989

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 R01 MH40631-04A1
BPN 2 GROUP: DUAL:
REVIEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: OCT./NOV. 88 PRG CL CD: NR-N DUAL PRG CL CD:

INVESTIGATOR: GREENOUGH, WILLIAM T DEGREE: PHD

ORGANIZATION: UNIVERSITY OF ILLINOIS RFA:

CITY, STATE: URBANA IL REQ. START DATE: 03/01/89

PROJECT TITLE: CNS SUBSTRATES OF A LEARNED MOTOR TASK

RECOMMENDATION: APPROVAL PRIORITY SCORE: 128
PERCENTILE SCORE: 25.3

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
04A1	49,724	49,724
05	47,916	47,916
06	48,697	48,697

APPLICANT'S ABSTRACT:

As an approach to the neural substrates of memory, this project examines characteristics and functional roles of structural changes that occur in nerve cells in response to behavioral training. The major focus is on changes that occur in the structure of neurons in the forelimb region of rat motor-sensory cortex when they learn to reach into a chamber for food. Prolonged training increases dexterity and, when the innately nonpreferred forepaw is exclusively trained, paw preference for reaching is reversed. Dendritic fields of nerve cells in a motor-sensory cortex region that appears from lesion, electrical stimulation, unit recording and metabolic activity studies to be critically involved in this behavior increase in size with training. This suggests that new synapses are formed as a consequence of learning and by implication that synapse formation may be a basis for long term memory. To further test this hypothesis, we propose to: 1) delineate the pattern of changes across afferent inputs and intrinsic nerve cell types as a partial description of a "memory circuit", using quantitative analysis of tissue prepared with Golgi impregnation, Phaseolus vulgaris leucoagglutinin (PHA-L) uptake, and electron microscopic techniques, and 2) test predictions from this anatomical pattern regarding functional organization, beginning by recording responses evoked by electrical stimulation of afferent sources in the in vitro cerebral cortical slice and in vivo. A separate paradigm, nictitating membrane conditioning in the rabbit using dorsolateral pontine nucleus stimulation as the CS, in which the conditioned response depends critically on identified regions of the cerebellar cortex, will be used in a collaborative study (with R. F. Thompson, of the University of Southern California, who is supplying the rabbit tissue) designed to further test the association of synapse formation with learning in a behavioral paradigm in which the physiological circuitry is well-defined. A significant advantage of both paradigms is that they allow (nonexclusive) use of a within-animal control procedure, such that generally-acting hormonal and metabolic factors and other effects unique to individual subjects or preparations can be mitigated.

FINAL ACTION: FEBRUARY 6-7, 1989

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 R01 MH16841-21

SRCM GROUP: 14 DUAL:

REVIEW GROUP: SPECIAL REVIEW COMMITTEE - NIMH

MEETING DATE: FEB./MARCH 88 PRG CL CD: HRB DUAL PRG CL CD:

INVESTIGATOR: HARVEY, JOHN A DEGREE: PHD

ORGANIZATION: UNIVERSITY OF IOWA RFA:

CITY, STATE: IOWA CITY, IOWA REQ. START DATE: 07/01/88

PROJECT TITLE: EFFECT OF CNS LESIONS ON DRUG ACTION

RECOMMENDATION: APPROVAL PRIORITY SCORE: 125

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
21	171,789	149,344
22	185,532	161,291
23	200,374	174,194
24	216,403	188,130
25	233,715	203,180

APPLICANT'S ABSTRACT:

Pavlovian conditioning of the rabbit's nictitating membrane response, a corneal-VIth nerve reflex, is generally agreed to provide a reliable measure of associative learning and memory. This model system will be used to identify the anatomical pathways and neurochemical systems involved in learning and memory and to examine the behavioral and neurochemical processes through which drugs act to alter learning and memory. Experiments will be carried out under three major aims that will provide converging approaches to obtain additional knowledge of these basic processes. Aim 1 will examine those brain regions that have been suggested to play an essential or important role in the acquisition and/or performance of conditioned responses. This will include a thorough examination of recent proposals that the cerebellum is essential for the learning of motor acts by the use of cortical (VIth lobe) and subcortical (interpositus) lesions of the cerebellum and from reversible lesions produced by infusion of lidocaine. The reversible lesion will then be employed to establish whether interpositus is essential for the acquisition of conditioned responses. These reversible lesions will also be used to identify other pathways of the conditioned and unconditioned response. Aim 2 will examine the uptake of ^{3}H- and ^{14}C-2-deoxy-D-glucose in a double isotope technique employing quantitative autoradiography to identify the areas of brain that are differentially activated by the contiguous presentation of a conditioned and unconditioned stimulus and whether such heterosynaptic facilitation of neuronal activity can predict subsequent rates of learning. For example, the effect of some drugs on learning appear to be secondary to their ability to increase or decrease such heterosynaptic facilitation. Aim 3 will use intraventricular injections of drugs that activate or inhibit the cAMP system to examine the role of this second messenger in learning and in the effects of drugs on learning. Such knowledge should provide clues concerning the neural systems involved in human disorders of learning and memory (e.g., Alzheimer's disease) and identify the drugs that might be effective in their treatment.

FINAL ACTION: May 16-18, 1988

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 R01 MH44734-01
BPN 2 GROUP: DUAL:
REVIEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: JUN 88 PRG CL CD: NR-B DUAL PRG CL CD:

INVESTIGATOR: HAUN, FORREST A DEGREE: PHD

ORGANIZATION: MEDICAL COLLEGE OF PENNSYLVANIA RFA:

CITY, STATE: PHILADELPHIA PENNSYLVANIA REQ. START DATE: 12/01/88

PROJECT TITLE: BEHAVIORAL EFFECTS OF SPECIFIC NEUROTROPHIC AGENTS

RECOMMENDATION: APPROVAL PRIORITY SCORE: 131
PERCENTILE SCORE: 30.8

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
01	73,307	73,307
02	73,633	73,633
03	78,701	78,701

APPLICANT'S ABSTRACT:

The experiments proposed in this study will test the ability of specific brain-derived neurotrophic substances to produce a behavioral improvement when delivered to damaged brain areas. Our laboratory has developed a procedure for deriving specific neurotrophic agen from explant co-cultures of embryonic central nervous system (CNS) structures. These agents are then able to rescue specific CNS neurons damaged in vivo. The experiments proposed her will test whether delivery of these neurotrophic agents to damaged brain areas will also contribute to recovery of a behavioral function impaired by the damage. We will first test whether a macromolecular fraction of conditioned medium (CM) from co-cultures of embryonic rat cortex and diencephalon is able to ameliorate a learning impairment in visual pattern discrimination that results when newborn rats sustain a unilateral posterior cortex removal. We will also determine the relationship between the behavioral effects of this CM fraction delivered to the lesion site and neuron survival in visual system structures with norm direct connections to the lesion site. The specificity of the behavioral effects will be tested by comparing the results with animals receiving similarly prepared CM fractions from co-culture of embryonic structures that normally have no direct connections, or other visual system areas with direct connections. These same experiments will also be conducted in animals receiving unilateral or bilateral visual cortex lesions as adults, with the behavioral test conducted while the animals receive continuous infusion of the CM fraction from an implanted osmotic pump. The direct contribution to the behavioral improvement of structures showing increased neuro viability in response to the neurotrophic agent, will then be tested by making lesions of those structures following delivery of the CM fraction. The results of these experiments will indicat whether CNS cell products with specific neuron survival-promoting properties may also improve behavioral functions impaired by damage to those neurons.

FINAL ACTION: September 14-16, 1988

SUMMARY STATEMENT
(Privileged Communication)

Application Number: 2 R01 MH26212-14

BPN -2

Dual Review:

Review Group: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE MH-8

Meeting Date: FEB/MARCH 1987

Investigator: HAWKINS, ROBERT D

Degree: PHD

Position:

Organization: COLUMBIA UNIVERSITY HLTH SCIS

City, State: NEW YORK NY

Requested Start Date: 09/01/87

Project Title: LEARNING MECHANISMS IN ABDOMINAL GANGLION OF APLYSIA

Recommendation: APPROVAL

Priority Score: 129

Summary Note:

10-NO HUMAN SUBJECTS INVOLVED.
10-NO VERTEBRATE ANIMALS INVOLVED.

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED	PREVIOUSLY RECOMMENDED	GRANT PERIOD
14	118,968	62,822		
15	124,336	66,591		
16	131,616	70,587		
17	138,333	74,822		
18	146,013	79,311		

APPLICANT'S ABSTRACT:

The program of research outlined in this proposal extends our analysis of associative learning in the marine mollusc, Aplysia, an animal which is particularly advantageous for examining different forms of learning at the cellular level. Previously we have found that the gill- and siphon-withdrawal reflexes -- two simple and related behaviors whose neural circuitry is well understood -- are capable of two associative forms of learning, classical and operant conditioning, as well as two nonassociate forms of learning, habituation and sensitization. We have also found that a mechanism of classical conditioning of the withdrawal reflex appears to be an elaboration of a mechanism of sensitization of that reflex on the cellular and molecular levels.

We now plan, in the proposed research, to use this system to extend our analysis of associative learning in four new directions:

1) a further analysis of molecular mechanisms of classical conditioning in the isolated nervous system,

2) an analysis of cellular mechanisms of classical conditioning in a semi-intact preparation,

3) a cellular analysis of higher-order features of classical conditioning, and

4) an analysis of cellular mechanisms of operant conditioning and comparison with classical conditioning.

FINAL ACTION: MAY 18 - 20, 1987

ADMINISTRATIVE SUMMARY SHEET

APPLICATION NO: 2 R01 MH28942-10

BPN 1
REVIEW GROUP: CELLULAR NEUROBIO & PSYCHOPHARM SUBCOMM

MEETING DATE: FEB/MAR 88 PRG CL CD: NRN

INVESTIGATOR: HELLER, ALFRED DEGREE: MD PHD
DEPARTMENT: PHAMACOLOGICAL & PHYSIOLOGICAL SCIENCES

ORGANIZATION: UNIVERSITY OF CHICAGO RFA:

CITY, STATE: CHICAGO, ILLINOIS REQ. START DATE: 07/01/88

PROJECT TITLE: DRUG MECHANISM IN NEURONAL DOPAMINE ORGANIZATION

RECOMMENDATION: APPROVAL PRIORITY SCORE: 122

SPECIAL NOTE: 10 - NO HUMAN SUBJECTS INVOLVED
30 - ANIMALS INVL.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED	DIRECT COSTS REVISED
10	195,756	180,091	180,091
11	214,232	204,050	204,050
12	228,477	217,684	217,684
13	243,732		232,229
14	260,150		247,746

PROGRAM STAFF COMMENTS:

Program staff recommends restoration of years -13 and -14 in this proposal in the amounts specified above. Dr. Heller, in a letter to Dr. Stephen Koslow dated April 22, 1988 (copy attached) acknowledges that there are certain "high risk" elements to the studies proposed. He points out, however, that the same criticism was leveled on the occasion of the two previous competitive renewals of this project. In both those cases, experiments whose feasibility was questioned and whose performance was advised against (with consequent cuts in both time and amount) were carried to substantial completion by his investigative group.

Dr. Heller also points out several errors in fact contained in the Summary Statement's critique. In brief these relate to: 1) the collaboration with Dr. Wainer to produce hybrid cell lines being "new" work not mentioned in the previous application; 2) the problems of access to DA neurons by trophic factors in the reaggregate culture system; and 3) the use of antimitotic drugs. Dr. Heller addresses these points as well as the immunological strategy proposed for identification of trophic factors convincingly and in great detail.

Dr. Heller, in Program staff's view, also adequately addresses the question of lack or productivity raised by the IRG. This particular work is labor

SUMMARY STATEMENT
(Privileged Communication)

Application Number 2 R01 NS18633-04

[illegible]
Council Review NS

Review Group [illegible] [illegible] RES SUBCOMM [illegible]

Meeting Date JUNE 1986

Investigator HOWARD, BRUCE D Degree MD

Position

Organization UNIVERSITY OF CALIFORNIA LOS ANGELES

City State LOS ANGELES CALIFORNIA Requested Start Date 12/01/86

Project Title PC-12 CELLS & NEURONAL FUNCTION

Recommendation APPROVAL Priority Score 118

Session Note

10-NO HUMAN SUBJECTS INVOLVED.
30-ANMLS INV.-VERIFIED, NO IRG CONCERNS OR COMMENT

Project Year	Direct Costs Requested	Direct Costs Recommended	Previously Recommended	Grant Period
04	137,602	119,389		
05	151,126	131,091		
06	162,368	140,330		
07	176,000	151,758		
08	193,161	166,495		

APPLICANT'S ABSTRACT:

One goal is to understand the mechanism of the selective toxicity of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine, which causes parkinsonism by killing certain dopaminergic neruons. Our studies will be performed on the clonal cell line PC12 and on a PC12 variant that is resistant to MPTP. MPTP kills wild type PC12 cells, which are dopaminergic, and it does so by inhibiting mitochondrial respiration. The PC12 variant is resistant to MPTP because of an alteration in energy metabolism. We will characterize energy metabolism in the variant to understand its mechanism of MPTP resistance. These studies are important because brain dopaminergic neurons unaffected by MPTP may have a similar mechanism of resistance.

We will also use the variant to identify, characterize, and determine the function of heretofore unrecognized proteins involved in neuronal storage, release, and reuptake of neurotransmitter. Presumably unrelated to its MPTP resistance, the variant has dificiencies in several neurotransmitter-related activities, e.g., neurotransmitter release and reuptake. Furthermore, the variant exhibits markedly decreased expression of multiple genes, and it is likely that most of the genes that are expressed in wild type PC12 but poorly or not at all in the variant code for proteins involved in neurotransmitter metabolism, storage, release, and transport. We have identified several of these genes by surveying some rat brain-specific cDNA clones and by screening a PC12 cDNA library. After sequencing these cDNA clones, we propose to synthesize the corresponding peptides, raise antibody against the peptides, and identify and characterize the natural protein products of these genes. Using the antisense RNA technique (by which it is possible to reduce the expression in a cell of one gene at a time) we will isolate several PC12 strains each of which is normal except for having a reduced level of the protein product of one of these genes. We will then determine which cellular activity pertaining to neurotransmitter storage, transport, or release is lost as a consequence of the low level of this protein. Three of the PC12 proteins not found in the MPTP-resistant variant are calmodulin-binding proteins. Because there is evidence that calmodulin mediates the Ca^{2+}-triggered release of neurotransmitters, we will purify and characterize these three calmodulin-binding proteins.

FINAL ACTION: September 15-17, 1986

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 R01 MH45397-01
BPN 2 GROUP: 9E DUAL:
REVIEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: FEB./MARCH 89 PRG CL CD: NR-B DUAL PRG CL CD:

INVESTIGATOR: KLEIN, MARC DEGREE: PHD

ORGANIZATION: CLINICAL RES INST OF MONTREAL RFA:

CITY, STATE: MONTREAL, QUEBEC, CANADA REQ. START DATE: 07/01/89

PROJECT TITLE: CELLULAR MECHANISMS OF LEARNING IN APLYSIA

RECOMMENDATION: APPROVAL
PRIORITY SCORE: 118
PERCENTILE SCORE: 21.8

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
10-NO LIVE VERTEBRATE ANIMALS INVOLVED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
01	114,831	96,595
02	127,058	107,910
03	89,811	69,706

APPLICANT'S ABSTRACT:

Sensitization and classical conditioning are two forms of learning, respectively non-associative and associative, that occur throughout the animal kingdom, including in man. In the marine mollusc Aplysia, both sensitization and classical conditioning involve increases in transmitter release, called heterosynaptic facilitation, from mechanoreceptor sensory neurons of the pathways that mediate defensive withdrawal behaviors.

A number of cellular phenomena accompany this facilitation, among them a reduction in potassium current, an increase in spike duration and number, and an alteration in the handling of calcium. Earlier work showed that facilitation involves mobilization of a biochemical cascade that results in a rise in intracellular cyclic adenosine monophosphate (cAMP) and the consequent phosphorylation of neuronal substrates by cAMP-dependent protein kinase.

The proposed project has a threefold aim:

1. To re-examine the role of cAMP in facilitation. This question is prompted by preliminary experiments that suggest that an increase in cAMP alone may be insufficient to account for facilitation.

2. To determine which of the cellular phenomena associated with facilitation are causal and which are not, and to determine how much of the faciliation can be accounted for by each process.

3. To examine the cellular phenomena associated with activity-dependent amplification of facilitation to determine whether, as has been proposed, classical conditioning involves only enhancement of processes that underlie sensitization, or whether new mechanisms are involved.

These questions will be addressed by examining 1) the effects on facilitation of treating sensory neurons with newly-available agents that influence the cAMP cascade; 2) the time courses of, and the effects of different manipulations on, each of the facilitation-associated phenomena, compared to those of the facilitation itself; and 3) cellular correlates of activity-dependent amplification of facilitation, a mechanism underlying classical conditioning.

FINAL ACTION: May 22-23, 1989

SUMMARY STATEMENT
(Privileged Communication)

Application Number: 1 K02 MH00622-01

Dual Review: MHB

Review Group: NIMH RESEARCH SCIENTIST DEVLPT REV COMM MH-6 NR 6
Meeting Date: JUNE 12-14 1985

Investigator: LEVY, WILLIAM B Degree: PHD
Position: RESEARCH ASSOCIATE PROFESSOR
Organization: UNIVERSITY OF VIRGINIA
City, State: CHARLOTTESVILLE, VA Requested Start Date: 01/01/86

Project Title: RELATING SYNAPTIC MODIFICATION TO COGNITIVE FUNCTION

Recommendation: APPROVAL (UNANIMOUS) Priority Score: 136
Special Notes:

10-NO HUMAN SUBJECTS INVOLVED.
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED.

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED	PREVIOUSLY RECOMMENDED	GRANT PERIOD
01	50,200	50,200		
02	50,600	50,600		
03	51,000	51,000		
04	51,400	51,400		
05	58,050	58,050		

APPLICANT'S ABSTRACT:

This proposal seeks funding from ADAMHA within the RSDA program at level II.

The long-term, overall goal of this project is to understand the neural bases of mental processes. Though it is probably impossible to underestimate the difficulties that might impede progress toward this goal, if we do not explicitly try to reach it, then progress will be at best random.

I have been encouraged to work on this problem because of the complimentary convergence of three disciplines. First, is the increasing incidence over the last 15 years of cognitive theories that use neuron-like elements as building blocks. These theories attempt to model psychophysical-like experiments in human pattern recognition and concept formation. Often the neuron-like building blocks involve hypothetical properties that are as yet unknown to neuroscientists. Second is work like my own that studies the role of well-defined neural activity in associatively based synaptic modification. These studies are able to test microscopically the reasonableness of the hypothesized neural properties. Third is the existence of what are necessarily precisely defined theories of statistical pattern recognition produced by engineers. The mathematical groundwork their theories provide seems eminently suited to provide a rigorous bridge for evaluating cognitive theories and the discoveries of synaptic modification.

Because the hypothesized rules of synaptic modification seem to distinguish among the various neural-like cognitive theories and because so little is really known about synaptic modification issues, our studies concentrate on constructing well controlled, easily interpreted experimental situations which allow the comparison of various theories of synaptic modification in a context amenable to both electrophysiological and electron microscopic analysis.

The research proposed here is a continuation of such studies that identify, as quantitatively as possible, the characteristics of synaptic modification. In addition, I would like to produce theories which better harmonize the cognitive and neural experimental data. I eagerly anticipate increased interactions with experimental cognitive scientists interested in neural-like theories.

FINAL ACTION: September 9-11, 1985 CONCURRENCE

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 R29 MH43426-01A1
BPM 2 GROUP: DUAL:
REVIEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: FEB./MARCH 88 PRG CL CD: NR[illegible] DUAL PRG CL CD:

INVESTIGATOR: MADDEN, JOHN, IV DEGREE: PHD

ORGANIZATION: STANFORD UNIVERSITY RFA:

CITY, STATE: STANFORD CA REQ. START DATE: 07/01/88

PROJECT TITLE: CEREBELLAR GABAERGIC PROCESSES IN CLASSICAL CONDITIONING

RECOMMENDATION: APPROVAL PRIORITY SCORE: 137

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
01A1	64,214	64,214
02	66,920	66,920
03	69,789	69,789
04	72,830	72,830
05	76,053	76,053

APPLICANT'S ABSTRACT:

This proposal is designed to further characterize the specific cerebellar GABAergic processes that appear critical for a form of simple associative learning; namely, classical conditioning of the rabbit nictitating membrane response. Behavioral experiments, employing pharmacological microinfusion techniques, are formulated to test several hypotheses: (1) that pharmacological inhibition of GABAergic transmission, which has been shown to impair retention of conditioned responding, will also impair acquisition; and (2) that benzodiazepine agonists and antagonists, which are known to differentially modulate GABA A transmission, can enhance and impair acquisition, respectively. Implicit in this hypothesis is the notion that pharmacological enhancement of GABAergic transmission at these sites will enhance acquisition of the CR.

Concurrent receptor analysis, employing quantitative autoradiographic techniques, will test the related hypothesis that training-induced enhancement of GABA transmission at these loci may subserve critical aspects of acquisition and retention of this associative task. These changes may, in part, be expressed as modifications in the GABA-receptor-ionophore complex and, consistant with enhanced synaptic efficacy, may be expressed as either enhanced affinity and/or increased number of relevant binding sites. These studies will address: (1) potential changes in both receptor affinity and number for the GABA and benzodiazepine recognition sites; and (2) potential modification in the interaction between these recognition sites.

Together, these investigations should contribute to our understanding of the neural substrates subserving simple associative learning and the interface of this process with cerebellar control of motor function. In addition, these results should broaden our understanding of disease processes, including those involved in disorders of learning and memory and in cerebellar degenerations, which affect the loci addressed in this proposal.

[illegible]

[illegible]

SUMMARY STATEMENT
(Privileged Communication)

Application Number 2 R01 MH14651-20
BBP Dual Review
Review Group BASIC BEHAV PROCESSES RES REV COMM BB-3
Meeting Date JUNE 1986 (June 12, 1986)

Investigator MARLER, PETER R Degree PHD
Position PROFESSOR
Organization ROCKEFELLER UNIVERSITY
City, State NEW YORK NEW YORK Requested Start Date 01/01/87

Project Title COMPARATIVE STUDY OF VOCAL LEARNING

Recommendation APPROVAL Priority Score 118
Special Note

10-NO HUMAN SUBJECTS INVOLVED.
30-ANMLS INV.-VERIFIED, NO IRG CONCERNS OR COMMENT

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED	PREVIOUSLY RECOMMENDED	GRANT PERIOD
20	127,028	107,028		
21	135,078	113,678		
22	146,211	123,315		
23	150,671	126,173		
24	160,226	134,013		

APPLICANT'S ABSTRACT

Research is proposed on factors that modify sensitive periods for learning. Special foci are hormonal correlates of variations in readiness to learn at different stages of life, modifiability of sensitive learning periods by various hormonal treatments, and effects of environmental deprivation on delaying sensitive period closure. Avian vocal learning is used as the paradigm. There are correlations between fluctuations in the levels of steroid hormones in the blood serum during the first year of life, and the time when learning occurs most readily. These provide the basis for experiments in which castration early in life will be followed by various regimes of hormone therapy. Testosterone and estradiol will be used, both separately and in combination, as the best current prospects for a role in learning. The potential lability of sensitive periods will be explored by behavioral and hormonal manipulations. Subjects will be two bird species extensively studied in prior work, with different patterns of song structure and development. Radioimmunoassay techniques will be used to track variations in blood hormone levels. New techniques will be applied for automated computer analysis of recorded vocalizations. These provide major improvements in quantitative description of vocalizations, and tracking changes in the stability of vocal patterns as development procedes. Learning of both optimal and suboptimal stimuli will be studied, including the role of innate responsiveness to key elements which have "enabling" effects, and facilitate learning of suboptimal stimuli by their presence. A major effort will be made to reinstate vocal plasticity after closure of the sensitive learning period. Success in this endeavor will provide new insights into conditions under which neural plasticity can be reinstated at a time when the threshold for acquisition of new material is normally high. Sensitive periods are a focus of research in many aspects of developmental neurobiology, and parallels with imprinting and song learning are providing fruitful common ground with ethologists, psychiatrists and psychologists concerned with normal and abnormal human development. The results will have implications for understanding the impact on behavioral and neural development of restricted access to certain kinds of stimulation at particular stages of development.

FINAL ACTION: September 15-15, 1986

SUMMARY STATEMENT
(Privileged Communication)

Application Number: 2 R01 MH12526-20A1

BPN -2 Dual Review: DA

Review Group: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE NS-8

Meeting Date: OCT./NOV. 1986

Investigator: MC GAUGH, JAMES L Degree: PHD h

Position:

Organization: UNIVERSITY OF CALIFORNIA IRVINE

City, State: IRVINE CALIFORNIA Requested Start Date: 12/01/86

Project Title: DRUG EFFECTS ON LEARNING AND MEMORY

Recommendation: APPROVAL Priority Score: 122

Special Notes: Site Visit
10-NO HUMAN SUBJECTS INVOLVED.
30-ANMLS INV.-VERIFIED, NO IRG CONCERNS OR COMMENT

Project Year	Direct Costs Requested	Direct Costs Recommended	Previously Recommended	Grant Period
20A1	108,515	108,515		
21	112,718	112,718		
22	119,889	119,889		
23	127,469	127,469		
24	135,189	135,299		

APPLICANT'S ABSTRACT:

The objective of this research is to increase our understanding of the neurobiological processes involved in modulating the storage of newly-acquired information. The specific aim of this research project is to investigate the interaction of amygdala noradrenergic and opiate receptor systems in modulating memory storage. Rats implanted bilaterally with amygdala cannulae will be trained on a Y-maze discrimination task and given posttraining systemic and/or intra-amygdala injections. Retention will be tested one week later by training the animals on a reversed discrimination. A first set of experiments will examine the effects, on memory, of concurrent intra-amygdala injections of agonists and antagonists affecting the two systems. A second set of experiments will examine the effects of posttraining administration of adrenergic and opiate agonists and antagonists on memory in animals given intra-amygdala injections of 6-OHDA one week prior to training. A third set of experiments will determine whether intra-amygdala injections of antagonists of one of these two receptor systems alter the effects, on memory storage, of systemic injections of compounds affecting the other receptor system. A fourth set of experiments will examine the effects, on memory, of posttraining administration of noradrenergic and opioid agonists and antagonists into other brain regions including the ventral hippocampus and the caudate-putamen. A fifth set of experiments will investigate the effects, on retention, of posttraining injections of noradrenergic and opioid compounds into specific nuclei within the amygdaloid complex. The findings of this research will increase our understanding of brain systems involved in the modulation of memory storage processes and, thus, should have implications for understanding and, ultimately, treating disorders of memory.

FINAL ACTION: FEBRUARY 9 - 11, 1987

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 R01 MH45096-01

BPN 2 GROUP: DUAL:

REVIEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: OCT./NOV. 88 PRG CL CD: NR-B DUAL PRG CL CD:

INVESTIGATOR: NORDEEN, ERNEST J DEGREE: PHD

ORGANIZATION: UNIVERSITY OF ROCHESTER RFA:

CITY, STATE: ROCHESTER NEW YORK REQ. START DATE: 08/01/89

PROJECT TITLE: NEURAL CHANGES ASSOCIATED W/CRITICAL LEARNING PERIODS

RECOMMENDATION: APPROVAL PRIORITY SCORE: 125
PERCENTILE SCORE: 20.6

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
01	81,920	81,920
02	87,360	87,360
03	93,220	93,220

APPLICANT'S ABSTRACT:

The aims of this proposal are to (1)identify cellular changes in the developing avian brain that underlie "critical" or "sensitive" periods for vocal learning and, (2) to determine how such changes are influenced by the learning of song-like vocalizations. Most birds learn song by memorizing a suitable song model (sensory learning) and then using auditory feedback to mimic that model (sensorimotor learning). These two phases of vocal learning are often restricted to species-specific developmental periods believed to coincide with pivotal changes in the organization of song-related brain regions. In zebra finches, for instance, sensory and sensorimotor learning overlap with drastic changes in the number, size, and connectivity of song-related neurons. The first study proposed will employ a comparative neuroanatomical approach to define better the relationship between neural change and sensory or sensorimotor learning. Developmental changes in the anatomy of vocal nuclei will be measured in swamp sparrows, a species in which the two phases of vocal learning are well separated in time. Next, neural changes that may be necessary for memorizing a vocal model will be identified. Acoustic isolation will be used to extend the critical period for sensory learning in zebra finches. It will then be determined how this manipulation influences the timing of neural changes in developing song regions. Finally, to determine how song learning influences the organization of song nuclei, neuroanatomical measurements will be correlated with individual differences in song complexity. Also, the ability of auditory experiences to influence the growth, retention, or addition of neurons during sensory or sensorimotor learning will be assessed. Critical learning periods exist for phenomenon as diverse as language acquisition, social attachment and imprinting. The proposal's long term goal is to understand the neural mechanisms underlying these periods of unique susceptibility and to determine how information may be stored through experience-dependent modifications of the developing nervous system.

FINAL ACTION: FEBRUARY 6-7, 1989

SUMMARY STATEMENT
(Privileged Communication)

Application Number: 2 R01 MH18343-15
BPNB
Council Round: MS
Review Group: NIMH NEUROPSYCHOLOGY RESEARCH COMMITTEE MH-B
Meeting Date: JUNE 1984

Investigator: NOTTEBOHM, FERNANDO
Position:
Degree: PHD

Organization: ROCKEFELLER UNIVERSITY
City, State: NEW YORK NEW YORK
Requested Start Date: 12/01/84

Project Title: NEURAL CORRELATES OF VOCAL LEARNING

Recommendation: APPROVAL
Special Notes:
Priority Score: 113

10-NO HUMAN SUBJECTS INVOLVED.

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED	PREVIOUSLY RECOMMENDED	GRANT PERIOD
15	94,372	94,372		
16	96,125	96,125		
17	103,060	103,060		
18	112,108	112,108		
19	120,209	120,209		

APPLICANT'S ABSTRACT

Autoradiographic studies using 3H-thymidine indicate that new neurons are added to hyperstriatum ventralis, pars caudalis (HVc) of the adult canary brain. HVc is in the forebrain and is part of the song control system used in song learning. The new neurons are formed by division of ventricular zone cells, then migrate, differentiate and become connected to existing circuitry. Research planned for the next 5 years will describe the dynamics of neuronal recruitment in this system, the factors that control it, and the possibility that the new neurons replace older neurons. 3H-thymidine and autoradiography will continue to be used for this work, as well as silastic implants of steroid hormones, deafening by removal of both cochleas, and kainic acid lesions. The significance of neurogenesis and neuronal replacment in adult HVc will be studied by searching for temporal correlations between these phenomena and times of year during which adult canaries are particularly prone to learn new song syllables and forget old ones. The hypothesis tested here is that there is a correlation between the temporal occurrence of song learning, song forgetting and replacement of HVc neurons. The behavioral studies will involve song recording and sound-spectrographic analysis. Within this scenario our specific aims will be: 1. To measure the half-life of song perceptual and motor memories in adult male canaries, and the extent to which they are hormone dependent. 2. To determine the seasonal occurrence of neurogenesis and neuronal replacement in adult canaries, and their temporal relation to periods of song instability, forgetting and learning. 3. To determine to what extent, if any, hormones and experience influence neurogenesis and neuronal replacement in HVc. 4. To determine the survival curves of new HVc neurons, and the extent to which they may vary between different neuronal classes. 5. To determine how new HVc neurons orient during migration and find a place to work. 6. To determine to what extent neuronal recruitment occurs during the period from hatching to sexual maturity, so that patterns of recruitment (and replacement?) occurring at that time can be compared with those occurring in adulthood. 7. To interfere with neuronal recruitment and neuronal replacement in adult HVc to see how this affects memory retention and learning of new songs.

An appreciation of the occurrence and significance of neurogenesis and neuronal replacement in adult brain could have profound effects on neurological practice.

Final Action: September 17-19, 1984

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 R01 MH44647-01

BPN 2 GROUP: DUAL:
/IEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: JUN 88 PRG CL CD: NR-B DUAL PRG CL CD:

INVESTIGATOR: PAYNE, BERTRAM R DEGREE: PHD

ORGANIZATION: BOSTON UNIVERSITY RFA:

CITY, STATE: BOSTON MASSACHUSETTS REQ. START DATE: 12/01/88

PROJECT TITLE: SPARING & LOSS OF FUNCTION AFTER CEREBRAL CORTEX LESIONS

RECOMMENDATION: APPROVAL PRIORITY SCORE: 119
PERCENTILE SCORE: 14.4

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
01	81,963	81,963
02	104,764	104,764
03	95,325	95,325
04	100,086	100,086

APPLICANT'S ABSTRACT:

The long-term goal of the proposed research is to understand the mechanisms which underlie the behavioral sparing and loss of functions that follow early damage of the cerebral cortex. In the proposed studies, the morphological changes associated with spared and impaired neural functions in cats, following removal of areas 17 and 18 at different stages of development, will be examined. Experiments will focus on survival and degeneration of neurons in the retina and in area PMLS of the cerebral cortex. For the retina, the spatial distribution of morphologically identified surviving ganglion cells will be determined, and the survival related to the pattern of their axon projections in the brain and to the cat's age at the time the damage is incurred. Corollary data on ganglion cell axon projections in the brain will also be obtained. For area PMLS, counts of surviving neurons will be made in each cortical layer, and related to the age of the cat at the time the lesion is incurred. In order to relate the degeneration to the pattern of axon projections, the origin of the pathway in PMLS to areas 17 & 18, and the termination of the reciprocal pathway, will be assessed at the same developmental stages areas 17 & 18 are removed. Additional studies will examine the organization of modified brain pathways from the thalamus and from cortical areas spared by the lesion to area PMLS. Conventional anterogradely and retrogradely transported axoplasmic tracer substances will be employed to identify neurons and brain pathways, and stereological procedures will be applied to assess neuron survival. The pattern of neuron degeneration will be related to impaired behavioral abilities, and the distribution of surviving neurons and modified pathways will be related to spared functions. The data obtained from these studies may prove fundamental to understanding the neural and psychological disorders that follow damage of the immature cerebral cortex.

FINAL ACTION: September 14-16, 1988

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 R01 MH44346-01
BPN 1 GROUP: DUAL: NS
REVIEW GROUP: CELLULAR NEUROBIO & PSYCHOPHARM SUBCOMM
MEETING DATE: FEB./MARCH 88 PRG CL CD: NRA DUAL PRG CL CD: AD
INVESTIGATOR: SIGGINS, GEORGE R DEGREE: PHD
ORGANIZATION: SCRIPPS CLINIC AND RESEARCH FOUNDATION RFA:
CITY, STATE: LA JOLLA, CALIFORNIA REQ. START DATE: 07/01/88
PROJECT TITLE: SOMATOSTATIN AND BRAIN FUNCTION
RECOMMENDATION: APPROVAL PRIORITY SCORE: 131
SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED
OUTSIDE OPINION

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
01	102,241	102,241
02	94,869	94,869
03	111,684	102,684
04	111,147	111,147
05	120,312	120,312

APPLICANT'S ABSTRACT:

The long-range objectives of this proposal are to determine the physiological effects and mechanisms of action of the neuropeptide family of prosomatostatin-derived peptides (SSs) and the functional role of endogenous somatostatins. Other major objectives are to investigate possible interactions of the SSs with other transmitter candidates and to correlate neuronal SS responsivity with immunohistochemical indices of SSergic innervation. Preliminary electrophysiological studies of the SSs suggest that the K+ conductance known as the M-current is enhanced by SS14 and SS28, leading to the suggestion that SSs may function to clamp the neuronal membrane potential at resting levels. Thus, SS may play a major role in reducing responses to excitatory amino acids (glutamate and NMDA) and therefore could be involved in certain brain phenomena such as long-term potentiation (LTP; a model of learning), hyperexcitability and excitotoxicity. The SS potentiation of cholinergic effects (seen previously) could also be significant with respect to memory processes and also to Alzheimer's dementia. The specific aims of this proposal are therefore to: 1) characterize the physiological mechanisms of action of SS; 2) further characterize SS interactions with other transmitters; 3) seek anatomical correlates of SS responses; 4) determine if SSs, with or without ACh, alter LTP in the hippocampus; 5) determine if SSs alter low-Mg++ induced neuronal hyperexcitability. To achieve these aims, intracellular current-clamp and single electrode voltage-clamp recording of neurons in several in vitro brain slice preparations will be used, including those from the hippocampus CA1, dentate gyrus, complex of the solitary tract, and cerebral cortex. SSs, acetylcholine, GABA, glutamate, NMDA, CRF and other drugs will be applied by superfusion or locally via pipette. Pathway stimulation and/or treatment with a SS antagonist, cysteamine or antibodies to SS will be used to determine the role of endogenous SSs. Intracellular injection of Lucifer Yellow and immunohistochemical staining of SS-containing fibers will provide anatomical correlates. These studies will help to clarify the sites and mechanisms of action of the SS peptides, and perhaps lead to therapeutic use of synthetic SS peptides in clinical disease states.

FINAL ACTION: MAY 16-19 1988

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 R29 MH44052-01

BPN 2 GROUP: DUAL:
REVIEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: FEB./MARCH 88 PRG CL CD: NR DUAL PRG CL CD:

INVESTIGATOR: STEINMETZ, JOSEPH E DEGREE: PHD

ORGANIZATION: INDIANA UNIVERSITY RFA:

CITY, STATE: BLOOMINGTON INDIANA REQ. START DATE: 07/01/88

PROJECT TITLE: THE INTERPOSITUS NUCLEUS AND CLASSICAL NM CONDITIONING

RECOMMENDATION: APPROVAL PRIORITY SCORE: 130

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
01	80,844	71,844
02	67,655	67,655
03	63,494	60,494
04	67,124	64,124
05	69,971	67,971

APPLICANT'S ABSTRACT:

Impairments in the learning and memory of even the simplest of tasks can be extremely disruptive to normal functioning and, in the long term, affect both mental and physical health. To fully understand impairments of learning and memory, it is necessary to understand how the brain alters activity to produce learning and memory. To this end, the long term goal of the proposed research is to describe neuronal mechanisms and processes that that form the basis of simple forms of learning and memory. More specifically, the proposed experiments are designed to study of the involvement the cerebellar deep nuclei (i.e., the interpositus nucleus) in classical conditioning, a simple form of motor learning. Three phases of experimentation are proposed: 1) a characterization of the patterns of critical stimulus inputs into the interpositus nucleus, 2) a description of potential alterations of activity of the interpositus nucleus during classical conditioning, and 3) the development of a reduced preparation amenable to future intracellular study of neuronal mechanisms involved in classical conditioning. In all three phases of the proposed experimentation, extracellular field potentials and single unit activity evoked by stimulation of precerebellar afferents will be monitored to assess interpositus activity. It is anticipated that these studies will provide valuable data concerning activity of the interpositus nucleus during classical conditioning.

FINAL ACTION: May 16-18, 1988

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 R01 MH40980-03
BPM 2 GROUP: DUAL:
.EVIEW GROUP: BEHAVIORAL NEUROBIOLOGY SUBCOMMITTEE

MEETING DATE: FEB./MARCH 88 PRG CL CD: NR DUAL PRG CL CD:

INVESTIGATOR: VICARIO, DAVID S DEGREE: PHD

ORGANIZATION: ROCKEFELLER UNIVERSITY RFA:

CITY, STATE: NEW YORK NEW YORK REQ. START DATE: 07/01/88

PROJECT TITLE: SENSORY-MOTOR REPRESENTATION OF A LEARNED SKILL

RECOMMENDATION: APPROVAL PRIORITY SCORE: 139

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
03	96,690	96,690
04	91,591	91,591
05	94,786	94,786

APPLICANT'S ABSTRACT:

The avian song control system provides a model for many aspects of neural integration and plasticity. Songbirds learn their songs by imitating external models. The major brain nuclei involved in vocal behavior have been identified. These nuclei are sexually dimorphic and develop under hormonal influence. Lesion studies have shown that the motor pathway for song includes the telencephalic nuclei hyperstriatum ventralis, pars caudale (HVc) and robustus archistriatalis (RA). HVc projects to RA and RA projects to the caudal portion of the hypoglossal nucleus (nXIIts), which in turn controls the muscles of the syrinx, the bird's vocal organ. Recent work has shown that nXIIts and RA contain subregions involved in the control of individual syringeal muscles. In addition, a specialized subregion of RA projects to the dorsomedial nucleus (DM) of the intercollicular area.

How is learned song represented in these brain structures? The present work uses physiological, anatomical, and behavioral methods to study the organization and operational principles of this system. Properties of both motor and sensory pathways involved in song learning and production will be studied, focussing on the function of input and output pathways to RA. The detailed organization of inputs from HVc will be studied as will the sources and nature of auditory input. The role of the projection to the midbrain nucleus DM in respiratory-vocal coordination will be examined. This organization will initially be examined in adult male birds and then in developing birds receiving controlled hormonal manipulations and auditory exposure. In addition, the central control of this behavior, including possible lateralization phenomena, will be studied using recordings from HVc, RA and syringeal muscles in awake, singing birds.

The results of this investigation will help to elucidate the way in which perceptual and motor components of a learned skill are represented in the brain, including their coexistence or segregation into separate hemispheres. A better understanding of the principles involved in this form of memory may in turn reveal conditions that encourage or limit learning.

FINAL ACTION: May 16-18,1988

SUMMARY STATEMENT
(Privileged Communication)

		Accession Number:	2 R01 NS38726-04
	BPNB	Dual Review:	
Review Group:	BPNB NEUROBEH RES SUBCOMM		BB-B
Meeting Date:	JUNE 1986		
Investigator:	WALTERS, EDGAR T	Degree:	PHD
Position:			
Organization:	UNIVERSITY OF TEXAS HLTH SCI CTR HOUSTON		
City, State:	HOUSTON TEXAS	Requested Start Date:	12/01/86
Project Title:	ASSOCIATIVE INFORMATION PROCESSING: CELLULAR MECHANISM		
Recommendation:	APPROVAL	Priority Score:	147
Session Notes:			

10-NO HUMAN SUBJECTS INVOLVED.
10-NO VERTEBRATE ANIMALS INVOLVED.

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED	PREVIOUSLY RECOMMENDED	GRANT PERIOD
04	75,003	72,878		
05	75,725	73,472		
06	76,723	73,335		

APPLICANT'S ABSTRACT:

The long-term objective is to analyze the cellular mechanisms underlying two important capabilities of the nervous system: (1) the ability to associate a given stimulus with a novel motor response (stimulus-response or S-R learning), and (2) long-term sensory modifiability. This objective requires the development of preparations, involving well-defined behavioral alterations and identified neuronal networks, that permit direct analysis of physiological mechanisms. Building on preliminary studies using the siphon, tail, head, and parapodia of the marine gastropod, Aplysia, intact and semi-intact preparations will be developed that show the acquisition of novel siphon responses after pairing parapodial stimulation with head or tail stimulation. Electrophysiological correlates of this S-R conditioning will be examined in identified siphon motor neurons and interneurons. Two hypotheses for the development of novel S-R connections will be tested using intracellular recording, voltage clamp, and quantal analysis techniques. Long-term sensory memory will be investigated in the central and peripheral processes of parapodial sensory neurons, which offer special advantages for sensory analysis. The general hypothesis that associative information storage in sensory systems makes use of mechanisms evolved for sensory compensation after injury will be tested. The contribution of a specific cellular associative mechanism - activity-dependent extrinsic modulation (ADEM) - to sensory modifiability will be tested. Several potential ADEM-related enhancements of signalling effectiveness produced by associative conditioning and by injury of the receptive field will be examined: synaptic facilitation, increased central and/or peripheral excitability, and sprouting of peripheral and/or central processes. These studies should provide basic information on general mechanisms of learning, sensory compensation, and neuronal regeneration that may eventually contribute to an understanding of normal and abnormal physiological plasticity within the human nervous system.

FINAL ACTION: September 15-17, 1986

BEST COPY AVAILABLE

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 2 R01 MH33443-10
BPN 1 GROUP: B DUAL:
REVIEW GROUP: CELLULAR NEUROBIO & PSYCHOPHARM SUBCOMM

MEETING DATE: FEB./MARCH 89 PRG CL CD: NR-N DUAL PRG CL CD:

INVESTIGATOR: WECKER, LYNN DEGREE: PHD

ORGANIZATION: LOUISIANA STATE UNIV MED CTR NEW ORLEANS RFA:

CITY, STATE: NEW ORLEANS LOUISIANA REQ. START DATE: 07/01/89

PROJECT TITLE: EXOGENOUS CHOLINE: EFFECTS ON ACH FUNCTION IN BRAIN

RECOMMENDATION: APPROVAL PRIORITY SCORE: 125
PERCENTILE SCORE: 24.8

SPECIAL NOTE: 10-NO HUMAN SUBJECTS INVOLVED
30-ANIMALS INV.-NO IRG COMMENTS OR CONCERNS NOTED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
10	162,314	109,700
11	173,569	118,004
12	189,566	128,444
13	209,442	
14	228,967	

APPLICANT'S ABSTRACT

The major goal of this research proposal is to elucidate the mechanisms regulating the synthesis of the neurotransmitter acetylcholine (ACh) in brain, with an emphasis on determining how alterations in the availability of the precursor choline modify these processes. Evidence has supported the hypothesis that an increased supply of choline to the brain provides substrate for ACh synthesis that is of functional significance only when neurotransmitter synthesis is increased as a consequence of stimuli that increase ACh release. While this effect is manifest following the acute parenteral administration of choline, it has not been demonstrated following chronic dietary supplementation, despite evidence that both treatments increase choline availability in the brain. Furthermore, when free choline is excluded from the diet, although steady-state levels of choline in brain are unaltered, the mobilization of free choline from esterified sources decreases, with a concomitant reduction in the synthesis of ACh. Thus, the specific aim of this proposal is to elucidate the neurochemical mechanisms regulating the synthesis of ACh in brain, and determine, at the subcellular level, how alterations in choline availability modulate these processes. The studies outlined will use a combined *in vivo/in vitro* approach and investigate the effects of acute choline administration, as well as the consequences of chronic dietary alterations; for the latter, rats will be maintained on choline-deficient or choline-supplemented diets for one month. Brain slices from these animals will be used for neurochemical investigations *in vitro*. The synthesis and release of ACh, the release and production of free choline, and the esterified sources of choline that provide precursor for ACh synthesis will be characterized in subcellular fractions from brain regions that contain a dense population of cholinergic nerve terminals, viz., striatum, hippocampus, and cerebral cortex. Specifically, the experiments will investigate: 1) the subcellular mechanisms responsible for the increased synthesis of ACh in brain slices from choline-injected rats when these slices are exposed to stimuli that increase the demand for precursor by increasing neurotransmitter release; 2) whether chronic (dietary) supplementation with choline has a direct effect on cholinergic neurons or whether observed *in vivo* effects are secondary to generalized membrane phospholipid perturbations; 3) the mechanism mediating the decreased synthesis of ACh in brain from rats fed a choline-deficient diet; and 4) the interactions among neuronal activity, the demand for choline, and phospholipid and ACh metabolism. Results from these studies will determine the nature and localization of the esterified choline pool that supplies free choline for ACh synthesis, and how this source is modulated by altering the availability of precursor. This knowledge is essential for a basic understanding of brain function and how such function can be impaired by the dietary restriction of an essential nutrient such as choline. Furthermore, results will provide a basis for the development of possible therapeutic strategies for the treatment of neuropsychiatric disorders postulated to involve central hypocholinergic activity such as Alzheimer's disease.

[illegible]

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 F32 MH09858-01

PRG CL CD: BR-C DUAL PRG CL CD:
CEP GROUP: 5 DUAL:
REVIEW GROUP: COGNITION EMOTION & PERS RES REV COMM

MEETING DATE: FEB./MARCH 89 PRG CL CD: BR-C DUAL PRG CL CD:
APPLICANT: MUSEN, GAIL F

SPONSOR: SQUIRE, LARRY R REQUESTED: 3 YRS
DEPARTMENT: PSYCHIATRY/RESEARCH
INSTITUTION: V A MEDICAL CENTER (V-116A)
CITY, STATE: SAN DIEGO CA
PROJECT TITLE: THE NATURE OF NONVERBAL MEMORY IN AMNESIC PATIENTS

RECOMMENDATION: APPROVAL 3 YRS PRIORITY: 140

SPECIAL
NOTE: 30-HS INV.-CERTIFIED NO IRG CONCERNS OR COMMENTS
10-NO LIVE VERTEBRATE ANIMALS INVOLVED

APPLICANT'S ABSTRACT

Abstract

The proposed research is designed to test whether amnesic patients show dissociations between explicit and implicit memory for nonverbal material. Amnesic patients perform normally on implicit memory for verbal material and motor skills but are impaired on tests of explicit memory. However, memory for nonverbal material has been little studied and extraordinarily little attention has been devoted to implicit memory for such material. The proposed experiments will test the ability of amnesic patients to 1) abstract prototypes for dot patterns,and 2) learn and form preferences for simple line figures. The ability to abstract prototypes will be assessed by patients' performance on classifying both previously presented and novel dot patterns into categories defined by prototypes. Memory for the line figures will be tested explicitly by recognition memory tests, and implicitly by both a perception task requiring the patients to draw a stimulus that is rapidly presented and immediately masked, and a preference rating task. The results of these experiments will help to clarify the nature of nonverbal memory in amnesic patients which is still poorly understood. These findings are relevant to questions about how memory processes and systems are organized in the brain.

NIH 1383-4
REV. 2/69

SUMMARY STATEMENT TRAINING

(Privileged Communication)

	BSR -2	Application Number	2 T32 MH15157-11
Review Group	PSYCHOLOGICAL SCIENCES SUBCOMMITTEE		MH
Meeting Date	FEB/MARCH 1987		
Program Director	BOWER, GORDON H	Degree	PHD
Position	PROFESSOR		
Organization	STANFORD UNIVERSITY		
City, State	STANFORD CALIFORNIA	Requested Start Date	07/01/87
Training Area	GENERAL EXPERIMENTAL PSYCHOLOGY		
Recommendation	APPROVAL	Priority Score	103
Special Note	30-HS INV.-CERTIFIED, NO IRG CONCERNS OR COMMENTS. 10-NO VERTEBRATE ANIMALS INVOLVED.		

YEAR	DIRECT COSTS REQUESTED	Pro	Post	DIRECT COSTS RECOMMENDED	Pro	Post	GRANT PERIOD
11	192,544	6	2	91,904	4	-	
12	197,205	6	2	94,973	4	-	
13	202,099	6	2	98,111	4	-	
14	207,238	6	2	101,406	4	-	
15	212,634	6	2	104,866	4	-	

APPLICANT'S DESCRIPTION. The purpose of this program is to train graduate students and postdoctoral fellows for "pure" and "applied" research in experimental psychology, with special consideration not only to experimental techniques and theoretical developments, but also to areas of significant applications of these techniques to educational, industrial, biomedical, or legal problems. Predoctoral trainees will be graduate students in psychology; the major sub-disciplines of experimental psychology to be emphasized are perception, learning and memory, psycholinguistics, emotion, and mathematical psychology. Students are trained to use new developments in computer simulation of psychological problems. In addition, each student is urged to take up an "applied" research specialty, such as educational program evaluation, human-computer interactions, evaluation of intellectual abilities, deficits in language development, evaluation of psychological effects of psychoactive drugs, or research problems in law (e.g., jury selection, jury decision-making; eye witness identification; leading questions in memory distortions). About a quarter of our Ph.D.s do research on such applied problems. Our training program generally requires four years beyond the Bachelor's degree and follows the doctoral degree program of the Psychology Department. Students, in consultation with the faculty, plan a program of courses best suited to their special interests and professional aspirations. From the outset of the program, they spend one-half time in research under faculty supervision, and they are encouraged to obtain research experience in several different areas of experimental psychology. In addition to course work within the Psychology Department, trainees are required to deepen their knowledge of some related area by electing courses in other departments; with our current practical emphasis, the electives increasingly are in such areas as education, human-factors research, speech-and-hearing sciences, psychopharmacology, and neuropathology. Students have opportunities

FINAL ACTION: May 18-20, 1987

NIH 1000-6
REV 2/80

SUMMARY STATEMENT - TRAINING

(Privileged Communication)

Attachment 3
REVISED

BEHB
Review Group: BEHB PSYCHOLOGICAL SCIENCES SUBCOMM
Meeting Date: JUNE 1986
Application Number: 1 T32 MH18215-01A1 EP

Program Director: GREEN, BERT F
Degree: PHD
Position: PROFESSOR OF PSYCHOLOGY
Organization: JOHNS HOPKINS UNIVERSITY
City, State: BALTIMORE, MD
Requested Start Date: 07/01/86

Training Area: COGNITIVE NEUROPSYCHOLOGY

Recommendation: APPROVAL
Priority Score: 124
Special Note: EXECUTIVE SECRETARY'S NOTE
32-HS INV.-CERTIFIED, IRG COMMENTS.
32-ANMLS INV.-IRG COMMENTS.

YEAR	DIRECT COSTS REQUESTED	STIPENDS PRE	STIPENDS POST	DIRECT COSTS RECOMMENDED	STIPENDS PRE	STIPENDS POST	GRANT PERIOD
01	179,921	4	5	111,644	3	3	
02	184,248	4	5	111,644	3	3	
03	182,786	4	5	111,644	3	3	
04	188,049	4	5				
05	193,552	4	5				

APPLICANT's ABSTRACT:

Cognitive neuropsychology integrates the study of normal cognition with the investigation of cognitive deficits resulting from neuropathology. Patterns of cognitive deficits found in brain-damaged subjects are used as a basis for developing and testing models of normal cognition. At the same time, examination of the types of neuropathology associated with particular cognitive disorders ties cognition to the brain. Thus, cognitive neuropsychological research contributes to the development of a functional description of the brain, both by articulating explicit models of cognitive function, and by exploring relationships of cognitive processes to brain systems. Finally, research in cognitive neuropsychology contributes to the development of theoretically motivated interpretations of cognitive deficits resulting from brain damage. The proposed training program focuses on human cognitive processes and their relation to brain function, training research scholars to investigate basic issues and their applications to problems related to mental health.

Predoctoral students are given extensive training in research. A series of structured research experiences takes each student from the level of a research-assistant to that of a relatively independent principal investigator. Courses are similarly organized to emphasize research. They begin with a introductory seminar, and continue with advanced seminars to develop detailed expertise in cognitive neuropsychology. Students learn teaching skills, first as teaching assistants for courses in this department, and then as instructors for courses in other institutions. Special joint programs combine this department's resources with those of the medical school.

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 R01 MH41783-01A1
REVIEW GROUP: MH BEHAV SC RES REV COMM
MEETING DATE: JUN 87 PRG CL CD: BR-5 DUAL PRG CL CD:
INVESTIGATOR: MULLIS, RANDOLPH J DEGREE: PHD
DEPARTMENT: HOME MGMT AND FAMILY LIVING
ORGANIZATION: UNIVERSITY OF WISCONSIN MADISON RFA:
CITY, STATE: MADISON WISCONSIN REQ. START DATE: 01/01/88
PROJECT TITLE: PSYCHOLOGICAL AND ECONOMIC WELL-BEING OVER THE LIFE SPAN
RECOMMENDATION: APPROVAL PRIORITY SCORE: 122
SPECIAL NOTE: 30-HS INV.-CERTIFIED NO IRG CONCERNS OR COMMENTS
10-NO LIVE VERTEBRATE ANIMALS INVOLVED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
01A1	57,577	57,577
02	60,289	60,289
03	20,169	20,169

APPLICANT'S ABSTRACT:

This study is designed to examine the relationship between economic and psychological well-being at the household level. Our primary concern is with the paradox which has emerged in quality of life research: that some individuals or families with high (low) incomes report low (high) levels of psychological well-being. We focus on accounting for the discrepancy, in part, by constructing more rigorous measures of economic well-being than merely "current income," and using these measures as better predictors of psychological well-being over the life cycle.

The Wisconsin Basic Needs Study will be used to construct measures of economic and psychological well being. The economic measures will be developed based on concepts arising from three economic hypotheses: (1) The Life Cycle Income Hypothesis; (2) The Relative Income Hypothesis; (3) The Resource Deficit Hypothesis. Use of these hypotheses contribute an added degree of rigor to measures of economic well-being which, it is believed, will result in a partial explanation of the observed discrepancy. The psychological well-being measure is based on the Terrible/Delight scale of Andrews and Withey (1976). Due to the empirical evidence supporting the importance of life cycle transitions on psychological well-being, this construct will be operationalized and provide a framework within which the relationships of interest will be explored.

Multivariate regression models will be developed to estimate the relationship between psychological well-being and each of the three independent variables while controlling for other exogenous variables, particularly life cycle stage, gender of householder, and other demographic variables (e.g. occupation, duties, education, etc.).

FINAL ACTION: September 14-16, 1987

SUMMARY STATEMENT
(Privileged Communication)

APPLICATION NO: 1 R01 MH45207-01
LCR 2 GROUP: DUAL: AG
REVIEW GROUP: AGING SUBCOMMITTEE

MEETING DATE: FEB./MARCH 89 PRG CL CD: 3R-C DUAL PRG CL CD:

INVESTIGATOR: MCEVOY, CATHY L DEGREE: PHD

ORGANIZATION: UNIVERSITY OF SOUTH FLORIDA RFA:

CITY, STATE: TAMPA FL REQ. START DATE: 04/01/89

PROJECT TITLE: PRIOR KNOWLEDGE EFFECTS IN COGNITIVE AGING

RECOMMENDATION: APPROVAL PRIORITY SCORE: 122
PERCENTILE SCORE: 22.6

SPECIAL NOTE: 30-HS INV.-CERTIFIED NO IRG CONCERNS OR COMMENTS
10-NO LIVE VERTEBRATE ANIMALS INVOLVED

PROJECT YEAR	DIRECT COSTS REQUESTED	DIRECT COSTS RECOMMENDED
01	62,318	62,318
02	56,212	56,212
03	57,807	57,807
04	60,527	60,527
05	63,378	63,378

APPLICANT'S ABSTRACT:

The recall of newly learned information declines with increasing age across the adult years. The magnitude of the age effect is influenced by the criterion task used to test recall, such that greater age effects are found in free and cued recall, as compared to recognition. Age effects are also more apparent when the test instructions require the subject to explicitly recall the studied information, rather than using implicit tests to prompt that recall. When the to-be learned information is presented as explicit facts, requiring little inferential processing on the part of the subject, age effects are less apparent. And finally, the use of semantic relationships between newly learned items of information appears to be more spontaneous and beneficial for younger than for older adults.

The proposed research will apply an existing model of human memory to the cognitive changes associated with aging. This model describes the effects of prior knowledge that the person brings to the learning situation, and the encoding and retrieval processes used in memory tasks. The model was developed using young adult subjects, and is now sufficiently detailed to apply to memory changes in older adults. The long-term goal of the project is to understand the ways in which older subjects use their prior knowledge to encode and retrieve information. Emphasis will be placed on processes such as the use of prior semantic connections in encoding new information, retrieval inhibition from searching existing knowledge, and accessing concepts across domains of information (i.e., accessing the phonemic code for a word when its semantic code has been retrieved).

The initial work on this project will be directed toward understanding cognitive changes in normal healthy elderly subjects. However, this project is also designed to investigate cognitive changes in elderly subjects with intellectual impairment from early dementia and clinical depression. The results of this research will allow us to understand the differences and the commonalities between normal and abnormal cognitive aging, and will have implications for developing techniques for teaching impaired elders.

FINAL ACTION: May 22-23, 1989

2 K05 MH05804-20 Stanford University William Dement

20 of 20 approved years

Project Title: Sleep and its Disorders

Project Description

This program contains three major foci:

Research on Normal and Pathological Sleepiness/Alertness. A very broad program has evolved with in-depth studies of the basic nature of the sleepiness/alertness dimension and its major determinants; amount and quality of sleep at night, circadian phase, age, drugs, and various pathologies.

Narcolepsy Research. The investigators are carrying out a series of biochemical studies which document specific CNS abnormalities in canine narcolepsy.

Sleep-Related Respiratory Disturbance and Aging. The researchers are investigating the relationship of sleep apnea and hypopnea to a variety of other functions in elderly populations. They emphasize longitudinal studies and cognitive studies as well as cardiovascular factors and daytime sleepiness.

David G. Cornwell, Ph.D.
Ohio State University Research Foundation

Iodinated peptides are used in assays for brain derived peptide hormones such as B-endorphin and adrenocorticorticotropin (ACTP) hormone. A radioimmunoassay for these substances requires the availability of a gamma counter (given that I125 emits gamma rays). The measurement of brain derived peptide hormones is useful in the study of the regulation of the hypothalamic-pituitary-adrenal (HPA) axis in health and the study of the dysregulation of the HPA axis in primary depression or depression occurring secondary in time to a major stressor such al loss of a loved one. The HPA axis responds to a variety of stresses and its activation is implicated in the compromise of immunocompetence. Assessment of the physiology of the HPA axis in anxiety disorders remains a topic of interest. Neuroendocrine studies performed in patients with panic disorder and/or agoraphobia have relied on a dynamic non-physiologic assessment of the axis using simplistic strategies such as the dexamethasone suppression test (DST). The availability of a gamma counter would be used to provide all ADAMHA sponsored investigators at The Ohio State University with the opportunity to have peptide hormones (thought to be involved in the pathophysiology of the affective and anxiety disorders and stress response) assayed at cost. New studies on the effects of Alzheimer's Disease and the withdrawal of antidepressants are now pending. Applications to support study of the neurobiology of stress and the effects of antidepressants on basic brain mechanisms (including the dynamic assessment of the HPA axis) will be submitted in fiscal year 1989-1990. A gamma counter which is essential in conducting this research has been funded by the ADAMHA Small Instrumentation Program.

Donald a. Jenden, MD
University of California, Los Angeles

The central objective of this research is to define ways in which drugs interfere with cholinergic systems on subcellular, cellular and system levels, using has chromatography/mass spectrometry in conjunction with both stable and radioactive isotopic labelling to obtain a dynamic assessment of cholinergic processes and the factors controlling them. The dynamics of high affinity choline transport and acetylation, and of acetylcholine storage and release, will be studied *in vitro* in synaptosomes, guinea pig myenteric plexus, and other systems. Neurochemical Physiological and behavioral effects of drugs will be studied in rats and mice. Compounds to be studied include muscarinic agonist, partial agonist and antagonists; agents such as choline, nicotinamide and cholinesterase inhibitors that have been shown to promote cholinergic activity; and a series of chemical probes which we and others have developed to produce specific biochemical lesions in cholinergic systems. These include irreversible inhibitors of high affinity choline transport and a choline analog which on dietary administration to rats produces model hypocholinergic state resembling Alzheimer's Disease. We expect these probes to be valuable in analyzing both presynaptic and postsynaptic regulatory mechanism, in producing experimental models of pathological states such as Alzheimer's Disease, and potentially in the development of new and more specific therapeutic agents.

SERVICES RESEARCH RELATED TO AGING

PROJECT ABSTRACTS

FY 89 Services Research Related to Aging

R29 MH43378 ""Geriatric Comorbidity: Hospital Course and Cost"
P.I. George Fulop, M.D., Mount Sinai Medical Center, New York, NY
$111,578

This research is examining the impact of coexistent medical and psychiatric disorders on the cost and length of hospital treatment of geriatric medical/surgical patients. The subjects are 465 inpatients admitted to the Mount Sinai Hospital with a major Axis I psychiatric disorder. A structured psychiatric diagnostic interview is being used to document comorbidity, severity of illness, and patient physical activity and level of functioning. Economic microanalysis at the individual patient level is being used to document incremental effects of psychiatric comobridity on hospital resource use and cost.

R01 MH43406 "Mental & Behavioral Problems in Nursing Home Residents" P.I.
M.C. Hawes, Ph.D., Research Triangle Institute, Research Triangle Park, NC
$207,690

This study is examining mental status and disordered behaviors among nursing home residents, the care such residents receive, and factors associated with different strategies used among nursing homes to respond to these problems. The study is also identifying characteristics and practices of nursing homes that manage disordered behaviors without intense use of psychotropic drugs or physical restraints. Most of the research involves secondary analysis of patient-level and facility-level data sets with information on more than 189,000 nursing home residents in 1,965 facilities in three States. Site visits are also planned to nursing homes that have low utilization of psychotropics and restraints relative to number of patients with behavioral disturbances.

R01 MH43214 "Statistical Theory & Methods for Prospective Payment" P.I. Carole Siegel, Ph.D., Nathan S. Kline Institute, Orangeburg, NY $191,060

The objective of this project is to develop advanced mathematical and statistical techniques for establishing improved methods of prospective payment for psychiatric cases treated in hospitals. The first issue is how to determine patient groupings that are both clinically meaningful and homogeneous with respect to resource use. The proposed mathematical models will predict length of stay and cost for each patient and generate a classification scheme with as few as possible broadly based patient groups. The second question to be addressed is how to determine prospective payment options that promote positive health care practices while controlling health care costs. A statistical decision theory framework will be developed to test the implications of prospective payment methods for patients, providers, and third party payers.

R01 MH44260 "Effects of Prospective Payment on Care for Depression" P.I. Kenneth B. Wells, M.D., The Rand Corporation, Santa Monica, CA 90406
$288,117

This study is examining the effects of Medicare's prospective payment (PPS) and TEFRA payment systems, relative to Medicare's former fee-for-service reimbursement, on elderly patients hospitalized with a primary diagnosis of unipolar depressive disorder and with active symptoms of depression at time of admission. Using time-series data drawn from medical records of a representative sample of 2,832 depressed elderly patients seen in 300 acute care general medical hospitals, Dr. Wells and colleagues are examining the effects of the three Medicare payment systems on case mix, length of stay, quality of care, and clinical status at discharge. The data base also includes information from secondary data bases, merged at the patient level, on post-hospitalization readmission and mortality rates.

R01 MH40790 "Cost-Effectiveness of a Psychiatric Liaison Intervention" P.I. James J. Strain, M.D., Department of Psychiatry, Mt. Sinai Medical Center, New York, N.Y.
$213,279

This study is evaluating the effects of a psychiatric liaison intervention on costs of health care for elderly female patients admitted to an inpatient orthopedic unit with a broken hip. The research is being conducted at hospitals in New York and Chicago. The specific hypotheses being tested are that proactive psychiatric attention to the mental health sequelae of hip fracture will reduce length of hospital stay and associated costs as well as increase frequency of return to home for those patients who had been living at home. The study is also evaluating whether the intervention decreases psychiatric morbidity during hospital stay and afterwards.

160

DEPARTMENT OF HEALTH AND HUMAN SERVICES - PUBLIC HEALTH SERVICE

NOTICE OF INTRAMURAL RESEARCH PROJECT

PROJECT NUMBER
Z01 MH 00339-08 LCS

PERIOD COVERED
October 1, 1988 to September 30, 1989

TITLE OF PROJECT (80 characters or less. Title must fit on one line between the borders.)
Neuropharmacology of Cognition and Mood in Geriatric Neuropsychiatry

PRINCIPAL INVESTIGATOR (List other professional personnel below the Principal Investigator.) (Name, title, laboratory, and institute affiliation)
Trey Sunderland, M.D., Chief, Unit on Geriatric Psychopharmacology, LCS, NIMH

COOPERATING UNITS (if any)
Laboratory of Cerebral Metabolism, NIMH; Biological Psychiatry Branch, NIMH;
Medical Neurology Branch, NINDS

LAB/BRANCH
Laboratory of Clinical Science

SECTION
Section on Clinical Neuropharmacology

INSTITUTE AND LOCATION
National Institute of Mental Health, National Institutes of Health, Bethesda, MD 20892

TOTAL MAN-YEARS:	PROFESSIONAL:	OTHER:
6	3.5	3.0

CHECK APPROPRIATE BOX(ES)
☒ (a) Human subjects ☒ (b) Human tissues ☐ (c) Neither
☐ (a1) Minors
☐ (a2) Interviews

SUMMARY OF WORK (Use standard unreduced type. Do not exceed the space provided.)

The pharmacologic challenge model continues to be at the center of most studies within the Unit on Geriatric Psychopharmacology. By using drugs to investigate underlying biologic function, we are testing potential diagnostic methods, while simultaneously attempting to develop new drug treatments. This past year, we concluded several major studies of Alzheimer's disease patients using novel pharmacological agents, such as m-chlorophenylpiperazine (m-CPP) and thyrotropin-releasing hormone (TRH). While Alzheimer's disease is best known for its cholinergic neuropathology, there are deficits in many other neurotransmitter systems. Our acute studies with the serotonin agonist, m-CPP, and the neuropeptide, TRH, have revealed potential benefits for both of these approaches and have opened the way for future combination strategies in Alzheimer's disease therapy. In addition, we have extended our earlier work with the monoamine oxidase inhibitor, L-deprenyl, to include a long-term study of its effects on the course of Alzheimer's disease.

With the high degree of overlapping symptoms between geriatric depression and dementia, it is essential to clinically evaluate patients carefully. Consequently, we have systematically compared and contrasted these two major geriatric disorders to ensure better diagnostic accuracy and to understand the common pathologic mechanisms. Given the lack of definitive diagnostic markers, we developed special rating scales to measure depression [i.e., Dementia Mood Assessment Scale (DMAS)] and daily functioning in dementia subjects [i.e., Daily Activities Questionnaire (DAQ)]. Biological specimens such as cerebrospinal fluid have also been tested to help differentiate depressed and demented patients from age-matched controls. In addition, extensive clinical and experimental cognitive testing provides us with important profiling tools to evaluate better our patients. Together, these instruments allow us to assess the effectiveness of our ongoing medication studies and will enable us to continue our correlative and longitudinal studies in the future.

DEPARTMENT OF HEALTH AND HUMAN SERVICES - PUBLIC HEALTH SERVICE NOTICE OF INTRAMURAL RESEARCH PROJECT	PROJECT NUMBER Z01 MH 02220-06 LCM

PERIOD COVERED
October 1, 1988 to September 30, 1989

TITLE OF PROJECT (80 characters or less. Title must fit on one line between the borders.)
Regional Biochemical Changes in the Normal Aging Brain

PRINCIPAL INVESTIGATOR (List other professional personnel below the Principal Investigator.) (Name, title, laboratory, and institute affiliation)

PI:	C. B. Smith	Research Chemist	LCM, NIMH
Others:	L. Sokoloff	Chief	LCM, NIMH
	Y. Sun	Visiting Fellow	LCM, NIMH

COOPERATING UNITS (if any)
Department of Biochemistry, University of Tennessee, Knoxville, Tennessee (Dr. J. Joshi)

LAB/BRANCH
Laboratory of Cerebral Metabolism

SECTION
Section on Developmental Neurochemistry

INSTITUTE AND LOCATION
NIMH, Bethesda, Maryland 20892

TOTAL MAN-YEARS:	PROFESSIONAL:	OTHER:
0.1	0.1	0.0

CHECK APPROPRIATE BOX(ES)
☐ (a) Human subjects ☐ (b) Human tissues ☒ (c) Neither
☐ (a1) Minors
☐ (a2) Interviews

SUMMARY OF WORK (Use standard unreduced type. Do not exceed the space provided.)

The effects of normal aging in rats on cerebral metabolic processes have been studied. With the application of local methods developed in this Laboratory, rates of two processes can be determined in discrete regions of the brain in normal conscious animals: (A) glucose utilization and (B) protein synthesis.

A. Glucose Utilization. In aged rats, rates of glucose utilization are decreased in the components of the primary auditory and visual pathways. In addition, glucose utilization in the striatum is particularly and significantly decreased. In order to examine the functional consequences of these senescent changes in the nigrostriatal dopaminergic system, we are studying the effects of aging on the metabolic responsiveness to the dopaminergic agonist, apomorphine. These studies are in progress.

B. Protein Synthesis. Rates of protein synthesis are also decreased in aged rats in components of the primary auditory and visual pathways. The changes may be the consequences of a chronic lack of sensory input due to age-related degenerative changes in both retina and inner ear.

Aluminum toxicity has been proposed as an etiological factor in Alzheimer's Disease and aluminum has been shown to affect numerous biochemical processes including several enzymes in the metabolic pathway for glucose. Experiments are in progress on the effects of prolonged (2 years) intake of low levels of aluminum in drinking water on local cerebral glucose utilization in aged rats.

DEPARTMENT OF HEALTH AND HUMAN SERVICES - PUBLIC HEALTH SERVICE

NOTICE OF INTRAMURAL RESEARCH PROJECT

PROJECT NUMBER

Z01 MH 00882-22 LCM

PERIOD COVERED

October 1, 1988 to September 30, 1989

TITLE OF PROJECT (80 characters or less. Title must fit on one line between the borders.)

Studies on Regional Cerebral Circulation and Metabolism

PRINCIPAL INVESTIGATOR (List other professional personnel below the Principal Investigator.) (Name, title, laboratory, and institute affiliation)

PI:	L. Sokoloff	Chief	LCM, NIMH
Others:	C. Kennedy	Guest Researcher	LCM, NIMH
	T. Nelson	Medical Officer (Research)	LCM, NIMH
	C. B. Smith	Research Chemist	LCM, NIMH
	G. A. Dienel	Senior Staff Fellow	LCM, NIMH
	N. Cruz	Biologist	LCM, NIMH
	K. Schmidt	Computer Systems Analyst	LCM, NIMH

COOPERATING UNITS (if any)

Theoretical Statistics & Mathematics Branch, NIMH (C.S. Patlak & K.D. Pettigrew); NINDS, NIH (I. Kopin & L. Porrino)

LAB/BRANCH

Laboratory of Cerebral Metabolism

SECTION

Section on Developmental Neurochemistry

INSTITUTE AND LOCATION

NIMH, Bethesda, Maryland 20892

TOTAL MAN-YEARS:	PROFESSIONAL:	OTHER:
6.5	4.0	2.5

CHECK APPROPRIATE BOX(ES)

☐ (a) Human subjects ☐ (b) Human tissues ☒ (c) Neither
  ☐ (a1) Minors
  ☐ (a2) Interviews

SUMMARY OF WORK (Use standard unreduced type. Do not exceed the space provided.)

The deoxyglucose method for the quantitative determination of rates of local glucose consumption in the discrete functional and structural components of the brain of conscious or anesthetized laboratory animals was developed in this laboratory over 10 years ago. In this method [^{14}C]deoxyglucose is employed as a tracer for glucose flux through the hexokinase step; the product, [^{14}C]deoxyglucose-6-phosphate, is measured by quantitative autoradiography. The method continues to be used to study alterations in local energy metabolism in a variety of physiological, pharmacological and a limited number of pathological states. Its suitability to a wider range of pathologic conditions is being extended and special time constraints which may be present in the method's adaptation for use in human subjects with [^{18}C]fluorodeoxyglucose and PET have been examined.

DEPA[redacted]EALTH AND HUMAN SERVICES - PUBLIC HEALTH SERVICE
[redacted]OF INTRAMURAL RESEARCH PROJECT

PROJECT NUMBER
Z01 MH 02039-07 LN

PERIOD CO[redacted]
October[redacted] to September 30, 1989

TITLE OF P[redacted]racters or less. Title must fit on one line between the borders.)
Pharmaco[redacted]cognitive memory and habit formation

PRINCIPAL IN[redacted] other professional personnel below the Principal Investigator.) (Name, title, laboratory, and institute affiliation)

PI:	[redacted]	Senior Staff Fellow	LN NIMH
Others:	[redacted]	Chief	LN NIMH
	[redacted]	Staff Fellow	LN NIMH
	[redacted]	Guest Researcher	CDB NIMH
	[redacted]	Chief	DPR NIDA
	[redacted]	Director	DR CC

COOPERATING [redacted]
Clinical [redacted] Branch, NIMH
Division [redacted]nical Research, NIDA
Department[redacted]ology, Clinical Center, NIH

LAB/BRANCH
Laboratory[redacted]psychology

SECTION

INSTITUTE AND [redacted]
NIMH, NIH, [redacted], MD 20892

TOTAL MAN-YEA[redacted]	PROFESSIONAL:	OTHER:
	1.0	1.0

CHECK APPRO[redacted]
☐ (a) Hum[redacted] ☐ (b) Human tissues ☐ (c) Neither
☐ (a1) M[redacted]
☐ (a2) I[redacted]

SUMMARY OF WO[redacted] unreduced type. Do not exceed the space provided.)

Evidence [redacted]ients with Alzheimer's disease suggests that the basal forebrain choli[redacted] system plays an important role in memory. In support of this proposal, we [redacted] found impaired visual recognition memory in macaques with lesions of the major [redacted] of this system. We have also found that recognition memory in normal monk[redacted] be improved by administration of the cholinesterase inhibitor physostigmin[redacted]paired by the cholinergic muscarinic-receptor blocker scopolamine. An[redacted] of retention, spatial memory, has also been found to be impaired by [redacted]ne, although it may be more resistant to such an effect than is recognition [redacted] In addition, our results indicate that scopolamine acts at a very early [redacted] suggesting an effect on primary, rather than secondary memory.

Based on [redacted] results indicating that THC may be exerting its effects through an action on [redacted]imbic system, we administered this drug to monkeys performing an automated [redacted]tion memory task. Doses of THC that we previously found to affect recognition [redacted]y in the Wisconsin General Testing Apparatus produced impairments in perform[redacted]t only at delays exceeding 30 seconds. This is in contrast to the impairm[redacted]oduced by scopolamine, where the maximal effect was observed with delays of le[redacted] 3 seconds. These results suggest that THC is exerting its effects on [redacted]tion memory through a system other than the cholinergic system.

In a serie[redacted]experiments on habit formation, we administered the dopaminergic-neurotoxin [redacted] monkeys, which produced learning and motor impairments that resolved wi[redacted] few weeks. In spite of the recovery, the animals were more sensitive to [redacted]effects of scopolamine, suggesting residual damage to the dopaminergic [redacted]. Two years after the last dose of MPTP was given, substantial dopamine def[redacted] were confirmed in these animals by positron emission tomography. The animals [redacted]subsequently shown to be impaired in learning a detour reaching task and a [redacted] memory task. In vivo dialysis showed dopamine levels in these monkeys were [redacted]ed in the prefrontal cortex, caudate nucleus, and putamen compared to [redacted] areas in normal control monkeys.

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DEPARTMENT OF HEALTH AND HUMAN SERVICES - PUBLIC HEALTH SERVICE

NOTICE OF INTRAMURAL RESEARCH PROJECT

PROJECT NUMBER

Z01 MH 00935-22 LBCG

PERIOD COVERED

October 1, 1988 to September 30, 1989

TITLE OF PROJECT (80 characters or less. Title must fit on one line between the borders.)

Studies of Plasmids and Small Genomes in Human Cells.

PRINCIPAL INVESTIGATOR (List other professional personnel below the Principal Investigator.) (Name, title, laboratory, and institute affiliation)

PI:	C.R.Merril	Chief, Biochemical Genetics	BCG, NIMH
Others:	L. Mitchell	Staff Fellow	BCG, NIMH
	D. Rath	Staff Biologist	BCG, NIMH
	B. Budowle	Chief, Forensic Sci.Research	FBI, Academy
	T. Sunderland	Senior Staff	LCS, NIMH
	R. O'Neill	Staff Fellow	DNM, NINCDS

COOPERATING UNITS (if any)

Forensic Science Research Group, FBI Academy, Quantico, Virginia

LAB/BRANCH

Biochemical Genetics Branch

SECTION

Biochemical Genetics Section

INSTITUTE AND LOCATION

NIMH, Bethesda, MD 20892

TOTAL MAN-YEARS:	PROFESSIONAL:	OTHER:
2.25	1.25	1

CHECK APPROPRIATE BOX(ES)

☐ (a) Human subjects XX ☐ (b) Human tissues ☐ (c) Neither
☐ (a1) Minors
☐ (a2) Interviews

SUMMARY OF WORK (Use standard unreduced type. Do not exceed the space provided.)

The Laboratory has been working on methods to examine the intra-individual somatic heterogeneity of the mitochondrial genome in normal and diseased tissues. As the mitochondrial genome is the main site of oxidation and the generation of free radical and since there are few if any repair mechanisms for the mit-DNA we suspect that there may be a significant level of somatic mutations in certain postmitotic tissues. The mitochondrial genome in tissues under oxidative stress, such as the brain and muscle, may be the most vulnerable to mutagenesis. To examine this possibility, the laboratory has developed a rapid method of DNA sequencing by employing the polymerase chain reaction and an amplification primer with a 5' biotinylated ligand to provide for a simplified method of preparing single stranded DNA which is easily sequenced by the Sanger technique. This procedure has facilitate molecular studies of the mit-genome and should prove generally useful for the study and diagnosis of human genetic diseases. We have also been studying methods of adapting RNA:DNA duplexes for the rapid screening of genomic variations: mismatches, substitutions and deletions.

When restriction fragment analysis was first applied to the mitochondrial genome it was concluded that the genome was monoclonal in each individual, with little if any evidence of somatic mutations. However, over the past two years large(7kb) deletion mutations have been observed in muscle mitochondria while the leukocyte mitochondrial were intact in some individuals with mitochondrial myopathies and related clinical disorders. Mutational events in the mitochondrial genome may provide some explanations for the pathophysiology associated with certain diseases and aging.

DEPARTMENT OF HEALTH AND HUMAN SERVICES - PUBLIC HEALTH SERVICE

NOTICE OF INTRAMURAL RESEARCH PROJECT

PROJECT NUMBER

Z01 MH 02360-03 CBDB

PERIOD COVERED

October 1, 1988 through September 30, 1989

TITLE OF PROJECT (80 characters or less. Title must fit on one line between the borders.)

Topographic Analysis of Brain Activity

PRINCIPAL INVESTIGATOR (List other professional personnel below the Principal Investigator.) (Name, title, laboratory, and institute affiliation)

Richard Coppola, D.Sc., Sen. Engineer, CBDB, NIMH

Terry Goldberg, Ph.D., Special Expert, CBDB, NIMH; Alison Reeve, M.D., Med. Staff Fellow, CBDB, NIMH; Daniel R. Weinberger, M.D., Chief, CBDB, NIMH; Francis Newman, Visiting Scientist, BPB; Trey Sunderland, M.D., Med. Officer, LCS, NIMH; Judith M. Rumsey, Ph.D., Sen. Staff Fellow, CPB, NIMH; Harold Sackheim, Ph.D., Columbia University, New York; Richard D. Weiner, M.D., Ph.D., VA, Duke University, N.C.; Werner Herrman, M.D., FU, Berlin, W. Germany.

COOPERATING UNITS (if any)

LNP, NIMH; LCM, NIMH; NSB, NIMH; BPB, NIMH; LCS, NIAAA; CPB; LNS, NIA; Columbia University, NY; VA, Duke University, N.C.; FU, Berlin, W. Germany

LAB/BRANCH

Clinical Brain Disorders Branch

SECTION

Section on Clinical Studies

INSTITUTE AND LOCATION

NIMH Neurosciences Center at Saint Elizabeths, Washington, D.C.

TOTAL MAN-YEARS	PROFESSIONAL	OTHER
2.5	1.5	1.5

CHECK APPROPRIATE BOX(ES)

☒ (a) Human subjects ☐ (b) Human tissues ☐ (c) Neither
  ☒ (a1) Minors
  ☐ (a2) Interviews

SUMMARY OF WORK (Use standard unreduced type. Do not exceed the space provided.)

Electrical brain activity, as an index of central nervous system function, is studied across a range of patient groups with neurological and psychiatric disorders as well as normal volunteers. Using electrophysiological data quantified from event-related potentials and spectrum analysis of EEG recordings, computer-derived brain images are able to provide information about neurophysiological function relating to both cognition and clinical state. Topographic maps efficiently characterize spatial and temporal patterns of brain activity allowing the ability to study the dynamic interaction among brain regions and their relation to function.

The project has two main purposes. The first is to refine the topographic and quantitative analysis methods and establish normative data for various conditions and activation procedures. For example, normal subjects differ with respect to their major focus of resting EEG alpha rhythm; one group shows a dominant parietal locus and one an occipital locus, depending on the alpha frequency.

The second purpose is to apply these methods to the characterization of clinical groups and pharmacological response. Work in progress includes characterization of subgroups of Alzheimer's patients, localization of abnormality in epilepsy patients, localization of drug activation and study of psychiatric patients on various neuroleptic drugs..

PHS 6040 (Rev. 1/84)

GPO 914-918

DEPARTMENT OF HEALTH AND HUMAN SERVICES - PUBLIC HEALTH SERVICE

NOTICE OF INTRAMURAL RESEARCH PROJECT

PROJECT NUMBER

Z01 MH 02177-07 NS

PERIOD COVERED

October 1, 1988 to September 30, 1989

TITLE OF PROJECT (80 characters or less. Title must fit on one line between the borders.)

Behavioral Functions of Neuropeptides

PRINCIPAL INVESTIGATOR (List other professional personnel below the Principal Investigator.) (Name, title, laboratory, and institute affiliation)

PI:	J.N. Crawley, Chief, Unit of Behavioral Neuropharmacology,		NS, NIMH
Others	S. DeMesquita	Visiting Scientist	NS, NIMH
	B. Martin	Visiting Scientist	NS, NIMH
	T. Podruchny	Psychologist	NS, NIMH

COOPERATING UNITS (if any)

Section on Molecular Neurogenetics

LAB/BRANCH

Clinical Neuroscience Branch

SECTION

Section on Molecular Pharmacology

INSTITUTE AND LOCATION

NIMH, NIH, Bethesda, Maryland 20892

TOTAL MAN-YEARS:	PROFESSIONAL:	OTHER:
2.70	1.70	1.0

CHECK APPROPRIATE BOX(ES)

☐ (a) Human subjects ☐ (b) Human tissues ☐ (c) Neither
  ☐ (a1) Minors
  ☐ (a2) Interviews

SUMMARY OF WORK (Use standard unreduced type. Do not exceed the space provided.)

A. Galanin is a 29-amino acid peptide that coexists with acetylcholine in the septohippocampal pathway of the rat. We previously found that galanin inhibits the ability of acetylcholine to improve memory in a t-maze delayed alternation task, in rats with ventral forebrain lesions analogous to the degeneration seen in Alzheimer's disease. To determine the minimum critical amino acid sequence for the biological activity of galanin, the fragments 1-16, 17-23, 24-29, 12-29, 18-29, and 21-29 were tested alone and in combination with acetylcholine. C-terminal fragments as short as 6 amino acids acted as agonists, inhibiting acetylcholine on delayed alternation. The N-terminal fragment 1-16, which binds to the galanin receptor with an affinity equal to the parent peptide, increased choice accuracy when administered alone to lesioned rats. This finding suggests that galanin 1-16 is an antagonist of the galanin receptor, and that such an antagonist may improve memory in this animal model of Alzheimer's disease.

B. Microdialysis experiments were begun to test the hypothesis that neuropeptides are released in concert with the "classical" neurotransmitters with which they coexist, during behavioral events which activate the pathway of the coexistence. Rats were dialyzed for 1) dopamine and cholecystokinin in the medial posterior nucleus accumbens, before and after treatment with high potassium chloride in the dialysate, haloperidol i.p., or during Digiscan hyperlocomotion; and 2) acetylcholine and galanin in the ventral hippocampus, before and after treatment with high potassium chloride in the dialysate, scopolamine i.p., or during t-maze delayed alternation. Basal levels of neuropeptides were undetectable in all cases; some treatments produced detectable but variable increases in peptide concentrations from the dialysate. Analyses of percent recoveries revealed 0.2-4% for microdialysis, as compared to 60-100% for push-pull cannulae recoveries for both peptides.

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DEPARTMENT OF HEALTH AND HUMAN SERVICES - PUBLIC HEALTH SERVICE

NOTICE OF INTRAMURAL RESEARCH PROJECT

PROJECT NUMBER

Z01 MH 01038-21LNC

PERIOD COVERED

October 1, 1988 through September 30, 1989

TITLE OF PROJECT (80 characters or less. Title must fit on one line between the borders.)

Phenylketonuria and Other Diseases Caused by Defects in Biopterin-Dependent Enzymes

PRINCIPAL INVESTIGATOR (List other professional personnel below the Principal Investigator.) (Name, title, laboratory, and institute affiliation)

PI:	Seymour Kaufman	Chief	LNC NIMH
	Sheldon Milstien	Research Chemist	LNC NIMH
	Keiko Tanaka	Guest Worker	LNC NIMH

COOPERATING UNITS (if any)

Stanley Rapoport, Chief LN NIA

LAB/BRANCH

Laboratory of Neurochemistry

SECTION

INSTITUTE AND LOCATION

ADAMHA, NIMH, Bethesda, Maryland 20892

TOTAL MAN-YEARS	PROFESSIONAL	OTHER
2.20	2.20	

CHECK APPROPRIATE BOX(ES)

☐ (a) Human subjects ☐ (b) Human tissues ☐ (c) Neither
  ☐ (a1) Minors
  ☐ (a2) Interviews

SUMMARY OF WORK (Use standard unreduced type. Do not exceed the space provided.)

Patients with Retts syndrome have lower than normal CSF levels of metabolites of monoamine neurotransmitters and abnormally high CSF levels of tetrahydrobiopterin.

CSF levels of BH_4, HVA and 5HIAA are lower than normal in two subtypes of patients with Alzheimers disease, those with extrapyramidal symptoms and those with myoclonus.

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DEPARTMENT OF HEALTH AND HUMAN SERVICES - PUBLIC HEALTH SERVICE

NOTICE OF INTRAMURAL RESEARCH PROJECT

PROJECT NUMBER

Z01 MH 00181 - 06 BP

PERIOD COVERED

October 1, 1988 to September 30, 1989

TITLE OF PROJECT (80 characters or less. Title must fit on one line between the borders.)

Hormonal Studies of Affective Disorder

PRINCIPAL INVESTIGATOR (List other professional personnel below the Principal Investigator.) (Name, title, laboratory, and institute affiliation)

David R. Rubinow, M.D., Chief, Unit on Peptide Studies, BPB, NIMH

Dr. P. Sunderland, LCS, NIMH; Dr. S. Molchan, LCS, NIMH; Dr. K. Denicoff, BPB, NIMH; Dr. P. Hauser, BPB, NIMH; Dr. P. Lewitt, Lafayette Clinic; Dr. R. Webber, LN, NIDDK; Dr. L. Tamarakin, Maryland University; A. Robucci, CNE, NIMH; Dr. M. Kruesi, CPB, NIMH; Dr. N. Ostrowski, ERP, NIMH

COOPERATING UNITS (if any)

BPB, LCS, CNG, CNE, CPB, ERP, NIMH; Lafayette Clinic, Detroit, MI; LN, NIDDK; Maryland University

LAB/BRANCH

Biological Psychiatry Branch

SECTION

Section on Behavioral Endocrinology

INSTITUTE AND LOCATION

National Institute of Mental Health, Bethesda, Maryland 20892

TOTAL MAN-YEARS:	PROFESSIONAL:	OTHER:
2	1	1

CHECK APPROPRIATE BOX(ES)

☒ (a) Human subjects ☒ (b) Human tissues ☐ (c) Neither
 ☐ (a1) Minors
 ☒ (a2) Interviews

SUMMARY OF WORK (Use standard unreduced type. Do not exceed the space provided.)

Studies of somatostatin and cortisol in relation to affective and other neuropsychiatric disorders have continued. Additionally, other studies have been undertaken including the investigation of beta endorphin in humans and rats administered interleukin-2 (IL-2), natural killer cell activity following hypnotically induced affective states, and interleukin-1 activity across the menstrual cycle and in relation to affective change.

A) Somatostatin - CSF somatostatin was significantly decreased in a large group (n = 62) of Alzheimer's patients compared with 12 age-matched controls; a trend for significantly lower values was seen in Alzheimer's patients compared with 18 elderly depressives, with the values in the latter group significantly lower than controls. Additionally, a significant correlation was observed between CSF SRIF and ratings of depression in Alzheimer's patients. A significant decrease in CSF somatostatin was observed in children with conduct disorder compared with age-matched children with OCD. Finally, significant increases in CSF somatostatin relative to baseline were observed in rats made either hypo- or hyper-thyroid.

B) Immune studies - A nonsignificant increase in corticosterone and beta endorphin was observed following IL-2 re-challenge in rats.

DEMONSTRATIONS AND CLINICAL TRAINING RELATED TO AGING

PROJECT ABSTRACTS

5H84MH 42404-03 **Georgia State Dept. of Human Resources**

Mrs. Alyce Friend
Principal Investigator

3 of 3 approved years $109,000

Project Title: **"Elderly Mentally Ill Males with Alzheimer's Disease"**

Project Description:

The State Department of Human Resources has contracted with the Atlanta Area Alzheimer's Disease and Related Disorder Association to provide the services of Respite Care Workers to persons with Alzheimer's disease and other degenerative dementia. A registry of case workers has been established and is used for referrals to families who request their services. A case manager overlooks the whole process and seeks to match the appropriate case worker with the suitable family.

5H84MH 42364-03 Louisiana State Dept. of Health Human Resources

Delores Jones
Principal Investigator

3 of 3 approved years FY 89 $105,467

Project Title: "24-Hour Crisis Intervention Program for Black Mentally Ill"

Project Description:

Black elderly mentally ill men and women are the focus of this mental health crisis project which is seeking to demonstrate effective approaches for coordinating and providing appropriate services for this target group. Their objectives include reducing institutionalizing of black elderly mentally ill persons in the Orleans Parish while increasing the fundamental skills of family members who function as caregivers for this population.

5H84MH 42371-03 Maine State Dept. of Health/Environment

Ms. Joyce Harmon
Principal Investigator

3 of 3 approved years FY 89 $109,295

Project Title: "Coordinated Community-Based Aging and Mental Health Services"

Project Description:

The State Bureau of Mental Health and Area Agency on Aging (AAA) are collaborating their efforts to provide flexible purchasing of mental health services, a system of comprehensive care, and optimum services for elderly mentally ill persons. Case management and technical assistance services will be available to mental health agencies who want this service from the AAA.

5H84MH 42397-03 Minnesota State Dept. of Human Services

Ms. Sharon Autio
Principal Investigator

3 of 3 approved years FY 89 $148,645

Project Title: "Elderly Persons and Long-Term Severe Disabilities"

Project Description:

The State Department of Human Services has contracted with the Range Mental Health Center located in northwestern Minnesota to provide a network of care that includes mental health, aging, nursing, public health, medical services and social services for elderly mentally ill persons who reside in this rural area. In-service training wll be offered to agency personnel who are most likely to come in contact with the target group. An evaluation of the program is planned.

H84 42412-03 Maryland State Dept. of Health/Mental Hygiene

Peter S. Rabins, M.D.
Project Director

3 of 3 approved years FY 89 $164,024

Project Title: "Elderly Mentally Ill in City Housing"

Project Description:

Three agencies, the State Office on Aging, the Baltimore City Commission on Aging, and the Baltimore City Health Department are working in cooperation with the Department of Health and Mental Hygiene to develop a model delivery system which will serve the elderly mentally ill who reside in city housing. The program provides psychiatric assessment, mental health treatment, case management and a variety of other services to this target population. If this demonstration is acceptable, it will be replicated for other housing sites.

5H84MH 42406-03 New Hampshire State Dept. of Health and Human Services

Mike Malloy
Principal Investigator

3 of 3 approved years FY 89 $142,009

Project Title: "Rural Alzheimer's Disease and Related Dementias"

Project Description: The State Division of Mental Health and Developmental Services and the Dartmouth Medical School are working in collaboration to provide services for a high risk elderly population with behavioral difficulties, severe, disabling mental illnesses and Alzheimer's disease. Services will focus on three components of a model program: individual assessment and treatment planning, case management and supported referral.

5H84MH 42366-03 North Carolina State Department of Human Services

Ms. Bonnie Morrell
Principal Investigator

3 of 3 approved years FY 89 $110,454

Project Title: "Senior Adult Growth and Enrichment Program"

Project Description: The Senior Adult Growth and Enrichment (SAGE) Program of the Alamance-Caswell Area Mental Health Program provides outreach, counseling, education and in-home services to senior citizens, care givers, and service providers in the two county catchment area. The program is designed to increase independence, to promote well-being, and to support older people in the community.

A community support day program serves up to 32 older adults with acute and chronic mental illness for five hours a day, five days a week. Services include group therapy, case management, volunteer work opportunities, education, socialization, and recreation.

5H84MH 42386-03 New Mexico State Dept. of Health/ Environment

George Wallace
Principal Investigator

3 of 3 approved years FY 89 $103,360

Project Title: "Mental Health Services to Elderly Mentally Ill"

Project Description:

Three pilot programs - two that are funded by this demonstration grant and the other by the State - are seeking to develop mental health delivery system changes that will provide better services for elderly mentally ill Native Americans and Hispanics in Santa Fe and Sandoval Counties. Community education, community-based Advisory Boards, outreach services and primary medical care will form the core of their programs.

5H84MH 42367-03 Ohio State Department of Mental Health

Ms. Maureen Corcoran
Principal Investigator

3 of 3 approved years FY 89 $110,688

Project Title: "Chums and Choices: A Support Network for the Severely Mentally Ill"

Project Description:

The State Department of Mental Health has contracted with Chums and Choices, a self-help program that seeks to generate volunteer support for mentally disabled older adults by being a helper, friend and advocate to them. The volunteers have endeavored to bring the senior mental health consumers back into the community and help them to access services that are appropriate to their needs. To achieve this end, the human services system has encouraged the coordination and collaboration of the community's resources.

5H84MH 42351-03 Virginia State Department of Mental Health/Mental Retardation

Ms. Saundra Rollins
Principal Investigator

3 of 3 approved years FY89 $108,800

Project Title: "Project Reach"

Project Description:

The locale of "Project Reach" will be in the City of Richmond. Professionals, paraprofessionals, and volunteers from public and private agencies provide outreach services for elderly persons who are at risk of being hospitalized. Mobile teams consisting of a psychiatric nurse, psychiatric social worker, peer counselor/volunteer and an on-call geriatric psychiatrist have received orientation and training for their prospective working duties. A public education campaign was mounted in the community to identify the target population. Training was given to the peer counselors on how to handle inappropriate behavior and other pertinent mental health issues.

GRANT PROJECT SUMMARY

1 T01 MH18987-01	University of Maryland	Bruce Ralph Fretz
Grant No./Pref./Suf.	Institution	Project Director

2 of 3 approved years
Year of Support

57,151
~~53,032.00~~
FY88

Project Title: NIMH Clinical Training

Project Description:

The program is designed to provide a minority mental health specialization in psychological approaches to the elderly with major mental disorders. By appropriate utilization of existing coursework and research options, along with the careful coordination of graded placement experiences, both postdoctoral trainees and predoctoral students in the APA-approved counseling psychology program at the University of Maryland will be able to develop both the generic skills needed for health service providers in psychology as well as the specializations needed for the assessment, intervention and research with aged persons with major mental disorders. The program can serve as a national model of how professional psychology training programs can provide a specialization in geropsychology without diminishing generic skills dr inordinately lengthening training programs. The program builds upon (1) the breadth of University of Maryland faculty resources in the psychology department concerning both research and interventions with the impaired elderly, (2) the well-established minority student recruitment and retention program in the psychology department, and (3) the more recent establishment of four types of training and research placements in metropolitan facilities for aged persons, with approximately half of all such residents being ethnic minorities. Placements in this wide range of treatment settings for aged persons - from in-patient medical hospitals, to mobile treatment teams, to assisted living facilities - will provide a firm foundation for both assessment and remediation, primarily within a secondary prevention framework, for aged persons as they first encounter major mental disorders. The program will provide (1) a specialized course in the psychological aspects of identification and treatment of Alzheimer's Disease and (2) three workshops focused on the cultural influences affecting assessment and intervention with Black, Hispanic, and Asian-American elderly persons with mental disorders; both of these aspects will be open to current mental health professionals and graduate students in counseling and clinical psychology.

GRANT PROJECT SUMMARY

1 T01 MH18962-01
Grant No./Pref./Suf.

Case Western
Reserve University
Institution

May Louise Wykle
Project Director

2 of 3 approved years
Year of Support

94,519
~~$4,000.00~~
FY88

Project Title: Geriatric Mental - Health Minority Initiative

Project Description:

Purpose - This is a three year grant application for support of five minor students in geriatric mental health nursing for each of three years. The maj objective of the program is to increase recruitment and retention of minorit students in Geriatric Mental Health Nursing and to offer a focus on the unique healt needs of minority elderly. The program will provide individualized support t enhance minority student success in creating a geriatric mental health nursing caree Specific Aims - 1. Increase the number of minority nurses providing mental healt services for under-served elderly populations. 2. Provide didactic, scientificall based, clinical experiences for minority students to increase their knowledge of mental disorders of the aging. 3. Increase self-confidence and competence of minority students for leadership positions by providing role models and faculty sensitized to the needs of minorities. 4. Sensitize trainees to needs of minority groups, particularly the minority elderly and provide a theory base for understanding relevant cultural and ethical issues. 5. Provide specialized counseling and tutorial services for educational and emotional support of minority nursing students. 6. Provide opportunities for students to develop and participate in research focused on the target population. The 42 semester hour program of study leads to a clinical major in geriatric mental health nursing with a focus on minority geriatric mental health. Content health promotion, knowledge development, implementation and evaluation of nursing strategies, concepts of therapeutic interventions for meeting the mental health needs of the aged. Study of Alzheimers' Disease, affective disorders, schizophrenia, anxiety, neuroses and personality disorders, psychopharmacology, minority issues and problems in geriatric mental health, minority health delivery services. Methods Utilizing both direct and indirect care component. students will work with individuals, families and groups and will have experience in consultation, planning, research and geriatric mental health education to develop the clients interpersonal competence and life satisfaction. Supervised clinical experience will occur in a variety of care environments.

San Jose State
1 T01 MH19331-01 — University Foundation — Phyllis J. Sturges
Grant No./Pref./Suf. — Institution — Project Director

1 of 3 approved years — 58,395.00
Year of Support — FY88

Project Title: Clinical Training in Minority Mental Health with the Elderly

Project Description:

The objectives of this project are as follows:

1. To recruit and train a corps of social workers for specialized practice with minority elderly who have severe mental health problems.
2. To expand the base of professional knowledge and skills about social work training for minority elders and to disseminate this knowledge.
3. To contribute to the program strength of mental health and health agencies servicing the minority elderly in Santa Clara and adjoining counties.

This proposal requests stipend support for minority and disadvantaged social work masters students for a period of three years. Six students will be trained in each of the first two years, and four students in the third year. These students will be trained at the School of Social Work, San Jose State University. The training will address mental health work for services to minority elderly: specifically Blacks, Hispanics and Asians. A group of four organizations who serve minority elderly and who can provide minority field instructors will provide the on-site field experience while the specialization on aging of the School of Social Work will provide the classroom teaching. A specialized on-site field seminar will be developed by the project in order to integrate academic and field knowledge and skills. It will be taught by faculty health and social service professionals in mental health, and by field instructors. Two high quality training tapes in family work with Filipinos and Vietnamese will be produced and a training manual written based on the on-site seminar. Results of the project will be disseminated locally and nationally and will provide a model of ethno-gerontology training in mental health.

1 T01 MH19362-01 — University of Virginia — Jeanne Fox
Grant No./Pref./Suf. — Institution — Project Director

75,121.00
1 of 3 approved years — ~~79,129.00~~
Year of Support — FY8~~8~~9

Project Title: Multidisciplinary Education in Schizophrenia and Psychogeriatrics

Project Description:

The proposed multidisciplinary clinical training program is designed to increase opportunities for collaborative education and practice of masters nursing students and psychiatric residents and to enhance the effectiveness of psychiatrists' and psychiatric nurses' coolaboration through an emphasis on integrating (1) physical health, psychiatric and psychosocial rehabilitation care and (2) research knowledge about neurophysiologic dysfunction and other pathophysiologic aspects of mental illness in psychiatric and psychiatric nursing care for schizophrenic and psychogeriatric clients in the public mental health system. Major goals include: (1) To improve the multidisciplinary education and clinical training of psychiatric nurses and psychiatrists in care of schizophrenic-seriously mentally ill adults in the public health system and, (2) To improve the multidisciplinary education and clinical training of psychiatric nurses and psychiatric residents in care of psychogeriatric clients in the public mental health system. Support for eight masters psychiatric nursing (four schizophrenia-serious mental illness and four psychogeriatrically focused) and four psychiatric residents (two schizophrenia - serious mental illness and two psychogeriatrically focused) is requested in this proposal

GRANT PROJECT SUMMARY

1 T01 MH19357-01	University of Pittsburgh	Rafael Engel
Grant No./Pref./Suf.	Institution	Project Director

1 of 3 approved years	69,921.00
Year of Support	FY88

Project Title: Enriching Service to Elderly With Mental Disorders

Project Description:

This proposal is designed to train Master's level and Doctoral level students in the School of Social Work to provide services to elderly persons with mental disorders. This training combines didactic content offered at the School of Social Work with clinical training within the Geriatric Health Services of the University of Pittsburgh School of Medicine. The Geriatric Health Services (GHS) includes four components (Geriatric Psychiatry Inpatient Program at Western Psychiatric Institute and Clinic (WPIC), Benedum Geriatric Center, Alzheimer's Disease Research Center, and Late Life Depression Program) each using a multidisciplinary team approach to provide clinical services to the elderly. While GHS serves as the primary training site, Master's students will also spend a half-day at the Adult Day Center at Vintage, Inc. This involvement offers students the opportunity to learn in a coordinated fashion within the context of an integrated continuum of care.

At the Master's level, the training program is designed to prepare in each of the three years, four second-year stipend-students as members of multidisciplinary teams for clinical practice with the elderly. The training model includes a didactic component built upon the School's Health/Mental Health concentration and Certificate of Gerontology program. The didactic content emphasizes geropsychiatric practice skills such as diagnostic criteria, assessment, and treatment alternatives with emphasis on the concerns and needs of minority and economically disadvantaged populations. This content is integrated into the students' clinical field training in which they develop assessment, treatment, and case-management skills while working with the elderly population.

The doctoral component of the training program is designed to prepare two second year students for advanced practice, supervision and administration, policy, and evaluation research in the area of mental illness and the elderly. The didactic plan for doctoral students builds on and enriches the existing doctoral curriculum and emphasizes practice, administration and policy concerns of mental illness. These students complement the didactic component with an advanced practicum, emphasizing clinical understanding of the range of modalities and treatment locations, while increasing their supervision, administration and policy competencies.

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GRANT PROJECT SUMMARY

1 T01 MH19228-01
Grant No./Pref./Suf.

Oregon Health Sciences University
Institution

Beverly M. Hoeffer
Project Director

1 of 3 approved years
Year of Support

68,000.00
FY88

Project Title: NIMH Institutional Clinical Training

Project Description:

The purpose of the training program is to prepare master's-level mental health nurse specialists to provide mental health services to persons with major mental disorders in publicly funded mental health settings. Financial support is requested for 6 postbaccalaureate trainees in year 1 and each subsequent year who meet admissions criteria for the School of Nursing graduate program.

The program's didactic and experiential content will stress assessment, diagnosis, and intervention with severely disturbed and mentally ill persons across the life span, and supportive strategies for assisting their families. Clinical experiences will be provided in publicly funded Oregon mental health settings that serve priority populations. Each trainee will have the opportunity to gain in-depth clinical experience with one of three priority populations of interest to them (i.e., severely and persistently mentally ill adults, seriously emotionally disturbed children and/or adolescents, and elderly persons with mental disorders). Special emphasis will be given to multidisciplinary training opportunities for trainees through an interdisciplinary seminar jointly conducted with the Public Psychiatry Training Program, Department of Psychiatry, Oregon Health Sciences University, and to collaborative endeavors with the Oregon State Mental Health Division. Specific goals of the project are:

1. Recruit students whose career goals include the provision of mental health care to one of the three priority populations in publicly funded service programs;
2. Utilize department curriculum review process to ensure that the latest scientific knowledge pertaining to the provision of mental health care to priority populations is included in relevant courses;
3. Increase collaboration between the Department of Mental Health Nursing and other Oregon State agencies and programs invested in the development of mental health human resources to address the needs of priority populations in the public sector.

GRANT PROJECT SUMMARY

1 T01 MH19350-01	Syracuse University	Neal S. Bellos
Grant No./Pref./Suf.	Institution	Project Director

1 of 3 approved years	70,000.00
Year of Support	FY88

Project Title: Social Work Case Management for Psycho-Geriatric Service

Project Description:

The overall goal of this proposed project is to refine and implement a specialized graduate training program to prepare Master's level social workers as case managers in psycho-geriatric services. Four trainees will complete the curriculum in psycho-geriatric social work during each year of the program. The goal will be achieved through accomplishment of the following objectives: a refinement of the School of Social Work's psycho-geriatric case management program models for implementation throughout the curriculum and in selected field placements; development of specialized formal field placement agreements with community agencies; the recruitment of second year graduate social work students; the initiation and implementation of an integrative field seminar and group research project; the development of two new courses within the existing competency based gerontology concentration (case management practice and loss and grief issues); identification of the knowledge, skills and attitudes needed by trainees pertaining to psycho-geriatrics; and conducting in-service and community education for professionals and paraprofessionals working with the elderly. This training proposal will help to develop the models of case management practice based on the needs of psycho-geriatric patients. The training is designed to develop and refine the professional case management skills of graduate social work students who are committed to working in the area of psycho-geriatric services. Social workers who are trained at the graduate level in case management practice will be able to bring to their work knowledge and skills in the areas of administration-management, clinical and human relations. Aggressive case management practice with psycho-geriatric patients will reduce the risk of dependence and increase self-determination. The case management models start with the assessment of the elderly patient's needs forming the basis for the development of plans that are responsive to the patient's psycho-social environment.

GRANT PROJECT SUMMARY

1 T01 MH19305-01	University of California	Gary W. Small
Grant No./Pref./Suf.	Institution	Project Director

1 of 3 approved years	70,000.00
Year of Support	FY88

Project Title: NIMH Institutional Clinical Training - Mental Disorders of Aging

Project Description:

The proposed program is designed to train psychiatrists and clinical psychologists for leadership roles in rendering mental health care to the impaired elderly. The goals are to train graduates to: (a) achieve clinical excellence in assessing and treating mental dysfunction in the elderly; (b) organize and lead geriatric teams serving hospital and community needs; (c) contribute to the scientific literature in geriatric mental health by designing and carrying out original research. Trainees have the opportunity to develop their clinical skills in specially targeted units which emphasize interdisciplinary team training at both the institutional and the community level. Emphasis is placed on integration of psychological and psychiatric knowledge with medical, neurological, and sociocultural knowledge. Trainees will participate with faculty in ongoing research in geriatric mental health and will complete an independent research investigation by the end of the two-year program.

Trainees entering the program will be licensed physicians with a minimum of 4 years of prior postgraduate training (internship plus 3 years of psychiatric residency) and clinical psychologists who have completed graduate training and internship in programs approved by the American Psychological Association. A total of 4 physicians and 4 psychologists will be trained during the entire project period. Criteria employed in the selectiun of candidates include demonstrated interest in the field of aging and mental health, as well as interest in and qualifications to pursue an academic career in geriatric psychiatry/psychology. Training facilities include several UCLA clinical sites, especially the Neuropsychiatric Institute and Hospital, the Center for the Health Sciences, and the West Los Angeles Veterans Administration Medical Center, Brentwood Division, as well as several community mental health programs.

GRANT PROJECT SUMMARY

1 T01 MH19255-01	Indiana University	Hugh C. Hendrie
Grant No./Pref./Suf.	Institution	Project Director

1 of 3 approved years	80,000.00
Year of Support	FY88

Project Title: NIMH Institutional Clinical Training

Project Description:

The purpose of this training grant is to provide support for interdisciplinary training in psychogeriatrics to psychiatric residents and fellows, and masters and doctoral students in psychiatric nursing. This model is appropriate for the care of the elderly population who present with multiple, complex, interlocking medical, neurological, as well as psychiatric illnesses, and their institutional and family caregivers. Sixteen percent of the state's population is 60 years of age or older (and growing); 15 - 25% suffer from significant symptoms of mental illness and 6% from dementing disorders. Yet, persons over 60 in the state receive only 2 - 4% of all mental health services. A major barrier to providing services for the aged is the availability of professionals prepared to provide geropsychiatric services in a variety of settings. The proposed program builds upon and expands previous elective training opportunities, by formally establishing the interdisciplinary training model in psychogeriatrics between the Departments of Psychiatry and Psychiatric Nursing at Indiana University, utilizing the resources of each, and university and community resources, in a collaborative training effort. The Alzheimer's Disease and Related Disorders outpatient clinic is already an available site for elective training in the psychiatric residency program and the psychiatric nursing program. Additional resources are now available in the Schools of Nursing and Medicine, the university and in affiliated institutions/ programs in the community, to support the proposed program. Broad project goals include: (1) develop and implement the interdisciplinary training model in psychogeriatrics at Indiana University, (2) increase the availability of psychiatric nurses and psychiatrists who are prepared to specialize in psychogeriatrics, and (3) develop linkages between the training program and professionals from other disciplines to provide multi-discipline perspectives on issues related to mental health care of the aged. Student support is requested for 3 masters and 2 doctoral psychiatric nursing students and 2 psychiatric residents and fellows.

GRANT PROJECT SUMMARY

1 T01 MH19352-01	Duke University	J.C.S. Breitner
Grant No./Pref./Suf.	Institution	Project Director

1 of 3 approved years	70,000.00
Year of Support	FY88

Project Title: Geriatric Psychiatry Training

Project Description:

The investigators propose a training program (response to RFA #MH89-04) in clinical and research training in geriatric psychiatry for trainees who have completed at least three years of residency training in psychiatry. The program has strong institutional support and is a continuation, yet restructuring, of a fellowship program in geriatric psychiatry existing at Duke Medical Center since 1966. It offers either a one year or a two year experience depending on the needs of the trainees. The one year program emphasizes clinical training and the two year experience combines clinical and research training.

The primary training site is Duke University Medical Center, where resources of the Department of Psychiatry and the Aging Center are integrated. Specific sites include: 1) The Geriatric Evaluation and Treatment Clinic, an ambulatory, multidisciplinary geriatric clinic with approximately 300 new intakes per year, 2) Duke University Hospital, with a combined Geropsychiatry/Affective Disorders Inpatient Unit (with the Psychiatric Consultation-Liaison Team), 3) The Memory Disorders Clinic (affiliated with the Alzheimer's Research Center), 4) Long-Term Care Institutions (long-term care/life care communities), 5) Durham VA Hospital, with the geriatric evaluation unit, psychiatry consult service, and outpatient clinic, and 6) the Fayetteville Area Health and Education Center. Training and supervision are provided by faculty members at all the training sites. Didactic activities include weekly scheduled conferences in research and aging, multidisciplinary clinical conferences, and supervision. Support is requested for four fellows (two PGY-4 and two PGY-5) for three consecutive years.

GRANT PROJECT SUMMARY

1 TO1 MH19277-01
Grant No./Pref./Suf.

Stanford University
Institution

Larry W. Thompson
Project Director

1 of 3 approved years
Year of Support

50,096.00
FY88

Project Title: NIMH Institutional Clinical Training

Project Description:

This program will implement a one year, full-time, broadly diversified clinical training experience focusing on mental health problems of the elderly. The program is designed to provide training for postdoctoral students in clinical or counseling psychology. Intensive supervised clinical experience will be offered to each Fellow in each of four tracks: neuropsychology; assessment of functional disorders and psychotherapy; behavioral medicine; and treatment of psychological distress in family caregivers. Trainees will rotate through selected programs and sites affiliated with the Division of Gerontology, Stanford University School of Medicine, and the VA Medical Center, Palo Alto, that offer appropriate training experiences. An opportunity to work with chronic mentally ill inpatients who have reached the older age ranges will also be provided in rotations through the Extended Care Service. Trainees will obtain a breadth of experience, along with in-depth experience in one of the four tracks, so that by the completion of the program, they will have skills in a variety of areas along with significant expertise in at least one of the four domains. In addition to the experiential component, all trainees will participate in core didactic experiences consisting of (but not limited to) the domains outlined above. This will include opportunities for participation in courses at Stanford, along with several specific lecture and workshop series coordinated by the GRECC (Geriatric Research, Education and Clinical Center) of Stanford and the VA focusing on issues in geriatric medicine, team functioning, and psychotherapy for the elderly. Through attendance at quarterly seminars and conferences sponsored by the Stanford Geriatric Education Center, trainees will increase their sensitivity to ethnic issues in the assessment and treatment of elderly patients--since that is the focus of this GEC. Individual and group clinical supervision will be provided in all clinical settings, under the direction of licensed psychologists with particular expertise in that area. Finally, opportunities for research training are available for those who wish to devote extra time to this area. Two postdoctoral applicants from APA-approved programs in clinical or counseling psychology (who have completed APA-approved predoctoral internships) will be recruited each year, with particular attention to recruitment of minorities, as minority elders with mental health problems are a severely under-served population at present.

ITEM 7. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FEBRUARY 1, 1990.

DEAR MR. CHAIRMAN: The Department of Housing and Urban Development is pleased to respond to the request of the Senate Special Committee on Aging for the annual report on the Department's programs and policies affecting America's elderly.

The measure of a compassionate society is how well it treats those who are most vulnerable. One of my concerns as Secretary of HUD is to provide a variety of ways to assist the elderly in obtaining appropriate, affordable housing and access to support services as needed. In developing and administering our programs and policies, it is important that we are able to provide assistance with that sense of dignity which is so important to every American.

Very sincerely yours,

JACK KEMP.

Enclosure.

U.S. HOUSING FOR THE ELDERLY—FISCAL YEAR 1989

The Department of Housing and Urban Development is committed to providing America's elderly with decent affordable housing appropriate to their needs. Our goal is to provide a variety of approaches so that older Americans may be able to maintain their independence, remain as part of the community, have access to supportive services, and live their lives with dignity and grace.

President Bush and Secretary Kemp announced a forward looking plan for housing, HOPE—Homeownership and Opportunity for People Everywhere—in November 1989. Among the major components are several which will assist the elderly. One is a demonstration project to provide service-supported housing for the frail elderly by coupling housing vouchers with assistance to help pay the costs of the services they need. Others focus on the preservation of low income housing which will benefit elderly currently residing in HUD assisted housing and on a broader supportive services component for the homeless.

The Department is currently evaluating its programs serving the elderly. The problems encountered in some of our programs, notably the FHA insurance program for Retirement Service Centers, have proven to be expensive to the Government and the intended residents. However, they have given HUD the opportunity to study how to provide both housing and supportive services for the elderly. We want to learn from these problems and to try new and innovative approaches that are economical and supportive of the type of community atmosphere that is helpful to the elderly.

In order that HUD efforts in the area of housing, especially in the provision of supportive services with HUD's elderly housing, receive top level attention, the Secretary is appointing a special assistant in the Office of Housing to provide oversight, policy guidance, and coordination with other Federal agencies in the area of supportive services for the elderly.

In keeping with the Secretary's priority for expanding affordable housing opportunities for low-income families, we are improving the delivery of our Section 202 program so that current and future Section 202 elderly/handicapped units move to production in a timely manner. Substantial efforts have begun to move the Section 202 pipeline to construction starts.

I. HOUSING

A. SECTION 202—DIRECT LOANS FOR HOUSING FOR THE ELDERLY OR HANDICAPPED

The Section 202 Direct Loan Program is the Department's primary program for providing housing for the elderly. It provides direct Federal loans to private, nonprofit corporations to finance the construction or substantial rehabilitation of residential projects and related facilities to serve the elderly or handicapped.

The Section 202 program was enacted by the Housing Act of 1959. Originally, the program was intended to serve persons whose incomes were above public housing eligibility levels, but still insufficient to obtain adequate housing on the private market. The Housing and Community Development Act of 1974 amended Section 202 to permit the use of Section 8 housing assistance payments for eligible lower-income persons who live in projects financed under the program. These payments make up the difference between the rent established for the unit and the tenant contribution, i.e., 30 percent of adjusted gross income.

Section 162 of the Housing and Community Development Act of 1987 further amended Section 202 to ensure that the program met the special housing and related needs of nonelderly handicapped families and individuals. Beginning in fiscal year 1989, projects for the handicapped will be assisted by project assistance payments. Rents will not be determined on the basis of Fair Market Rents, but will be determined by the reasonable and necessary costs of operating a project for the handicapped. Rental assistance for Section 202 projects for the elderly was not changed.

During fiscal year 1989, the Department committed $327.1 million to finance 6,710 rental housing units for the low-income elderly and $112.8 million for 2,463 rental units for low-income persons with handicaps.

Loans under the program cover up to 100 percent of total development costs and may be repaid over a 40-year period at below market interest rates. During fiscal year 1989, the interest rate was 9¼ percent. For fiscal year 1990, the annual interest rate is 8⅜ percent.

From reactivation of the Section 202 program in fiscal year 1974 through fiscal year 1989, approximately $9.9 billion has been reserved, representing 4,672 projects and 219,613 units. Due to the Department's outreach efforts, minority sponsors were awarded over 28.7 percent of the total funding in fiscal year 1989.

The Department has experienced problems in achieving construction starts on already approved Section 202 projects. We are currently working to "unclog" the Section 202 construction pipeline. The Secretary has taken a number of steps including permitting pipeline projects to use the most currently effective Fair Market Rents (FMR); reviewing the new construction FMR system to see if there are ways to simplify the process and establish reasonable rent limits; initiating a review of the cost containment policies with particular attention to efficiency units, common spaces and elevators. These actions should go a long way to easing the pipeline problems and produce much needed units.

B. SECTION 231—MORTGAGE INSURANCE FOR HOUSING FOR THE ELDERLY

Section 231 of the National Housing Act authorized HUD to insure lenders against losses on mortgages used for construction or rehabilitation of rental accommodations for persons aged 62 years or older, married or single.

Section 231 is designed solely for unsubsidized rental housing for the elderly. Nonprofit as well as profit-motivated sponsors are eligible under the program. Section 231 also permits the construction of congregate housing projects. At the end of fiscal year 1989, 501 projects, providing 66,611 units for elderly families, have been insured under the program. Total insurance written was $1.4 billion.

C. SECTIONS 221(D)(3) AND (4)—MORTGAGE INSURANCE PROGRAM FOR MULTIFAMILY HOUSING

Sections 221(d)(3) and (4) authorized the Department to provide insurance to finance the construction or rehabilitation of rental or cooperative structures. Special projects for the elderly can be provided under these programs, and may include features such as congregate facilities. While these programs are not solely for the elderly, they are available to nonprofit and profit-motivated mortgagors as alternatives to the Section 231 program, which has largely been replaced by these sections for construction of housing for the elderly. Mortgages under Section 221(d)(4) may be processed and coinsured by approved coinsuring lenders.

Under Section 221(d)(4), mortgage insurance was available for Retirement Service Centers which are market rate residential rental projects for the elderly with services such as meals served in a central dining facility, housekeeping, and laundry. Cumulatively, 128 projects with 18,782 units, are completed or under construction, for a total of almost $1.1 billion.

The program was suspended in light of a dramatic incidence of financial difficulty with projects of this type. A large percentage of Retirement Service Centers (a preliminary estimate is in excess of 35 percent) have defaulted or are experiencing financial difficulty. Losses of this magnitude are unacceptable in a program not designed to serve lower income people. The suspension will continue until the program has been analyzed and revised to ensure a financially sound program that maximizes benefits to lower income households.

The Office of Policy Development and Research is currently studying the Retirement Service Centers program and is expected to release its report in late spring 1990.

From the beginning of the 221(d) (3) and (4) programs through fiscal year 1989, 11,139 projects containing 1,212,302 units were insured, for a total of $30.5 billion. Residents in 483,579 of the units were receiving Section 8 rental assistance.

D. SECTION 223(F)—MORTGAGE INSURANCE FOR THE ACQUISITION OR REFINANCING OF EXISTING MULTIFAMILY HOUSING PROJECTS

This program offers mortgage insurance for existing facilities, including cooperative and rental housing for the elderly, where repair needs do not warrant substantial rehabilitation. The program can be used either in connection with the purchase of a project or for refinancing only.

Mortgages under this program can be processed and coinsured by approved coinsuring lenders.

E. SECTION 232—MORTGAGE INSURANCE FOR NURSING HOMES, INTERMEDIATE CARE FACILITIES, AND BOARD AND CARE HOMES

The primary objective of the Section 232 program is to assist and promote the construction and rehabilitation of nursing home and intermediate care facilities. The vast majority of the residents of such facilities are elderly. Since the beginning of the program in 1959 through September 1989, the Department has insured 1,656 facilities, providing 198,315 beds, for a total of $3.4 billion.

The Housing and Urban-Rural Recovery Act (HURRA) of 1983 established a Board and Care Home program for the elderly and others as part of Section 232. The program permits units with shared bedroom and bath facilities and central kitchens. These facilities provide continuous protective oversight of the residents. There is no medical component and no Federal requirement for a certificate of need. Board and Care Homes must meet State and local licensing and occupancy requirements. Under the Board and Care Home program, 42 projects with 4,000 units, are completed or under construction, for a total of $145.3 million. An additional 39 projects are in processing.

F. SECTION 242—MORTGAGE INSURANCE FOR HOSPITALS

Under Section 242 of the National Housing Act, the Department insures mortgages to finance the construction or rehabilitation of nonprofit, proprietary, and public hospitals, including major moveable equipment.

From the inception of the program through fiscal year 1989, the Department has insured 251 hospitals, providing 68,943 beds for a total of $6.2 billion. In fiscal year 1989, 2 hospitals, with 343 beds, were insured for a total of $32.5 million.

G. SECTION 8—RENTAL ASSISTANCE AND HOUSING VOUCHERS

Section 8 of the U.S. Housing Act of 1937 authorizes housing assistance payments to aid lower income families in renting decent, safe, and sanitary housing. Section 8 provides rental assistance for families in a variety of housing types, including new construction, substantial and moderate rehabilitation, and existing housing. Under the programs, assisted families generally pay 30 percent of adjusted income toward rent and HUD pays the difference between that and the rent for an adequate housing unit. As of September 30, 1989, approximately 46 percent were occupied by elderly and handicapped persons.

The Section 8 Existing Housing Certificate program has proved particularly helpful to elderly families, because many of them are eligible to receive assistance while remaining "in place" within a dwelling unit which meets HUD's housing quality standards. As of September 1989, more than 900,000 units were approved for the Certificate program.

Housing Vouchers, which also enable families to receive assistance without moving, are believed to be even more beneficial to elderly persons because of the additional flexibility offered by the absence of rent ceilings. Cumulatively through fiscal year 1989, 228,558 vouchers were reserved.

Authorization is provided also for shared housing arrangements under Section 8 programs. On June 11, 1986, HUD published a final rule implementing this option for the Existing Housing Certificate program. One shared housing arrangement of particular interest to elderly families permits homeowners to rent space in their homes to tenants who receive rental assistance. Such arrangements may facilitate reduced housing costs, companionship, and security for the elderly.

Single Room Occupancy (SRO) housing is another option which some localities may find especially beneficial for certain segments of the elderly population. SRO's are eligible for assistance under the Section 8 Moderate Rehabilitation program, Existing Housing Certificate, and the Housing Voucher programs under certain conditions.

H. CONGREGATE HOUSING SERVICES PROGRAM

The Congregate Housing Services Program was designed to demonstrate the cost-effectiveness of providing supportive services for the elderly and handicapped under HUD auspices to prevent or delay unnecessary institutionalization. Under this program, HUD extends multiyear grants (3 to 5 years) to eligible public housing agencies and nonprofit Section 202 sponsors for meals and other support services for frail elderly and nonelderly handicapped residents. As of September 30, 1989, $30.8 million has been obligated to grantees.

Sixty grantees are in operation, serving approximately 2,000 residents on a regular basis. About 280 residents were served last year on a short-term, temporary basis, usually after incapacitation or hospitalization. Congress appropriated $5.4 million for fiscal year 1989. These funds are being used to extend the 60 grants for at least an additional 12 months from current expiration dates. The renewals are processed consistent with each grantee's current expiration date.

I. MANUFACTURED HOME PARKS

At the request of the Administration, the HURRA of 1983 amended Section 207 of the National Housing Act to permit mortgage insurance for manufactured home parks exclusively for the elderly. The program has been operational since the March 1984 publication of a final rule implementing the legislation.

II. PUBLIC AND INDIAN HOUSING

Approximately 537,000 public housing dwellings (44 percent of the total program inventory nationally) are occupied by the elderly. Many of the dwellings are in buildings designated for exclusive occupancy by the elderly and handicapped.

The Public Housing Program is the Nation's oldest and largest housing program for lower income people, established under the U.S. Housing Act of 1937. It is an essentially local program, based on a partnership between the local community and the Federal Government. Each community, through its Public Housing Agency (PHA) in cooperation with the local governing body, takes primary responsibility for providing housing to lower income people, with financial assistance from the Federal Government. Projects are developed, maintained, and operated by approximately 3,300 PHAs (including about 300 Indian housing authorities) in communities throughout the country, ranging from the largest cities and suburbs to small towns and rural areas. Public housing, which is owned by the PHA (or in a relatively few instances leased), is distinct from the Section 8 housing assistance payment programs also administered by many PHAs.

In the Public Housing Program, the Federal Government—through the local PHA—pays for development costs and provides operating subsidies to ensure that low rents and adequate services are available. In addition, modernization funds are provided to PHAs to enable them to rehabilitate older projects. As a condition for this assistance, the PHA agrees to use and maintain the property as decent, safe, and sanitary housing for eligible lower income people, consistent with the requirements of Federal law and regulations. Rents, including utilities, have been set by Congress at 30 percent of adjusted tenant income. In calculating adjusted income, some special deductions are made in the case of the elderly.

In many public housing projects, special facilities and services are provided to meet the needs of the elderly, such as safety and security features, meals and transportation services, and recreational programs. These special services are usually provided by other agencies that rely on funding from Federal, State, and private sources, with the PHA supplying the facilities and acting as the local coordinator.

In general, these projects have been very successful in meeting the needs of their elderly and handicapped residents. Standards of design and maintenance have been high, along with resident satisfaction. PHAs report that elderly residents are excellent tenants and citizens, who take pride in their homes and play important roles in management and service programs.

Development of new public housing is no longer the principal vehicle for producing additional dwellings for the lower income elderly under Federal housing programs. Other programs—such as the Section 202 program and Section 8 certificates and vouchers—now account for the bulk of the units added in recent years. With regard to public housing, amendments enacted by the Congress in 1983 and 1984 require that the Department give priority in approving new applications to projects for families requiring three or more bedrooms. The primary emphasis with regard to public housing for the elderly has become preservation, maintenance, and rehabilitation of the existing housing stock.

III. Community Planning and Development

A. COMMUNITY DEVELOPMENT BLOCK GRANT ENTITLEMENT PROGRAM

The Community Development Block Grant (CDBG) Entitlement program is HUD's major source of funds to large cities and urban counties for a wide range of community development activities. These activities benefit low- and moderate-income households, eliminate slums and blight, or meet other urgent community development needs. The CDBG program made available to States and communities approximately $2.8 billion in Fiscal Year 1988. Approximately $2 billion went to 736 metropolitan cities and 121 urban counties by entitlement, with individual amounts determined by formula. States distributed the balance to small cities with populations under 50,000.

Entitlement communities' elderly residents benefit directly and indirectly from many CDBG-funded projects. The CDBG program is decentralized, and local communities are not required to report program beneficiaries by age. For this reason, it is extremely difficult to determine the exact amount of CDBG funds that directly address the needs of the elderly. However, available data indicates that Entitlement communities budgeted more than $23.8 million in fiscal year 1988 to assist senior centers. Metropolitan cities planned to use $13.5 million for this purpose, and urban counties, $10.3 million. Another major source of elderly benefits from CDBG funding is housing rehabilitation. This accounted for approximately 36.1 percent of all Entitlement funding. A large portion of the $976.1 million budgeted for these activities by Entitlement communities in fiscal year 1988 benefited the elderly. CDBG funds are used by many communities to make home improvement loans and provide weatherization services for elderly homeowners and renters.

Significant amounts of CDBG Entitlement spending for neighborhood improvements, public services, and other public works directly and indirectly benefit the elderly. CDBG Entitlement grantees allocated about $61.5 million for improvements to and operation of neighborhood facilities, $16.4 million for the removal of architectural barriers, $6.9 million for centers for the disabled, and $68.6 million for other public facilities. These activities also provided significant benefits to the elderly.

The following examples illustrate how the CDBG Entitlement program is used to provide a wide range of benefits and services to the elderly:

> Anne Arundel County, MD, used $620,000 to design, acquire, and construct a senior citizen center and install handicap access modifications for residential units at the Brunwood Eldely Housing Complex.
>
> Chicago, IL, provided $2.2 million for information, referral, and supportive services that assist the elderly and disabled in independent living. This program coordinates the provision of health, social services, homemaking, transportation, medical, and recreational services that prevent unnecessary institutionalization.
>
> Dade County, FL, used $148,000 for the development and management of subsidized rental housing for the elderly and handicapped by a neighborhood based nonprofit organization; $24,000 for security improvements in elderly residences; and $5,000 for transportation of elderly residents to a senior center.
>
> Los Angeles County, CA, provided $393,033 for elderly projects: $173,462 for information referral services targeted to the elderly; $113,185 for the expansion and construction of senior centers; $79,716 for off-site infrastructure and parking lot improvements at senior citizen housing projects; and $31,670 for a senior citizen house sharing program.
>
> Phoenix, AZ, provided $42,000 for escort services provided to the frail elderly and $6,400 for improving senior citizen housing complexes security through the installation of new telephone activated entry systems.
>
> Pico Rivera, CA, provided $100,000 to partially fund the construction of a senior citizen center.
>
> Ponce, PR, used $70,000 to improve facilities at the Los Diamentes Senior Citizens Center and expand community services for the elderly.
>
> Portland, OR, used $68,490 for home repair and maintenance, shared housing, self-help weatherization, and home security programs for senior citizens.
>
> Seattle, WA, provided $833,995 for elderly projects: $347,885 for senior centers and services including home repairs and homesharing; $332,512 to provide meals for the elderly; and $153,598 for information referral and client assistance services for low-income senior citizens.

B. CDBG STATE AND SMALL CITIES PROGRAM

The State Community Development Block Grant and HUD-Administered Small Cities programs are HUD's principal vehicles for assisting communities with populations under 50,000 that are not central cities. States and small cities use the CDBG funds to undertake a broad range of activities and structure their programs to give priority to eligible activities that they wish to emphasize.

As in the CDBG Entitlement program, States are not required to report to HUD the ages of individuals who benefit from their recipients' activities. Although State Performance Evaluation Reports contain a wide variety of data, the level of benefits to the elderly cannot be determined with certainty. As of the June 30, 1988, Performance Evaluation Report filing date, 48 States distributed $203.5 million of their $808.5 million fiscal year 1988 allocation. States allocated a substantial portion of CDBG funds—37 percent—to activities that benefit elderly persons. Of that amount the largest share, approximately $58.6 million or 29 percent, went to housing-related activities such as the rehabilitation of private properties. An additional $15.5 million or 8 percent of the State CDBG funds went to public facilities and public service projects such as support for senior centers, neighborhood facilities, centers for the disabled, and removal of architectural barriers.

The following examples illustrate the types of elderly projects that were funded by States in fiscal year 1988:

California provided the community of Atascadero with $579,000 for the acquisition of property for a 95-unit senior housing project, and $6,250 to Watsonville for housing counseling services.

Connecticut provided the communities of Hebron, Morris, and Naugautuck with $1.1 million for the construction and improvement of senior centers and $275,000 for the rehabilitation of homes for senior citizens.

C. URBAN DEVELOPMENT ACTION GRANT (UDAG) PROGRAM

HUD awarded Urban Development Action Grants to cities and counties to enhance local economic development activities and create permanent jobs, especially for low- and moderate-income persons. Minimum standards of economic distress had to be met by these communities. The UDAG program's national competition gave consideration to community distress factors, private funds leveraged, number of jobs created, and local tax increases.

Since its beginning, the UDAG program has benefited the elderly, directly or indirectly, by providing funds to assist communities in the development of health care services, adult day care centers, downtown and suburban shopping centers, and other public and private facilities. Since 1978, HUD has awarded 103 UDAGs to 34 States and Puerto Rico for projects that directly assist the elderly.

The following examples illustrate how the UDAG-assisted projects benefit the elderly:

Buffalo, NY, used $600,000 to assist the renovation and conversion of a 166-bed nursing home facility into a 170-bed, skilled nursing care and health-related facility.

Pine Ridge Reservation, SD, used $604,000 to assist the construction of a 60-bed nursing home facility located on a tribally owned 10 acre site.

Richmond, CA, was provided with $1 million to help construct a mixed use commercial and housing development which includes the rehabilitation of the vacant, historic Hotel Don into 36 units of low-income rental housing for seniors.

D. RENTAL REHABILITATION PROGRAM

The Rental Rehabilitation program was authorized by Section 17 of the Housing Act of 1937, as amended by the Housing and Urban-Rural Recovery Act of 1983, and privides grants to States, cities with populations of 50,000 or more, urban counties, and approved consortia of units of general local government. In fiscal year 1989, Congress made $150 million available for Rental Rehabilitation program grants. These grants finance the rehabilitation of privately owned rental housing in order to help ensure that an adequate supply of standard housing is affordable to lower income tenants. In addition, rental assistance is provided to very low-income and displaced persons to help them afford the increased rent of rehabilitated units or to move to other housing. This assistance is made available through Section 8 Existing Housing Vouchers and Certificates administered locally by Public Housing Agencies.

Although the Rental Rehabilitation program is relatively new, the number of completed units has increased dramatically in the past 2 years. As of June 30, 1989, commitments had been issued for 30, 659 projects containing 147,796 units, and all rehabilitation construction work had been completed in 22,330 projects containing 91,186 units. Elderly tenants account for approximately 12 percent of the occupied units in these buildings.

E. SECTION 312 REHABILITATION PROGRAM

Through the Section 312 Housing Rehabilitation Loan Program, HUD makes loans for the rehabilitation of single family and multifamily, residential, mixed use, and nonresidential properties. These funds are derived from loan repayments, the recovery of prior year commitments, and unobligated balances from prior years. To be eligible for assistance, properties must be located inurban areas designated as eligible for the Community Development Block Grant program or the proposed rehabilitation must be necessary or appropriate for the execution of an approved Urban Homesteading program. Communities must also give priority for loans to low- and moderate-income owner occupants whose incomes are at or below 80 percent of the median income for that metropolitan area.

In fiscal year 1988, 2,140 Section 312 loans totaling $101.9 million were made in 281 communities. The majority of these funds ($51 million) were used to make 1,968 single-family loans. One hundred seventy loans, totaling $49 million, were made for the rehabilitation of multifamily, nonresidential, or mixed-use buildings. Although comprehensive data on the ages of borrowers are not currently collected, available information suggests that about 22 percent of Section 312 single-family loan recipients were 60 years of age or older.

F. EMERGENCY SHELTER GRANTS PROGRAM

The Emergency Shelter Grants Program provides grants to States, cities, and urban counties to improve the quantity and quality of emergency shelters for the homeless through the renovation, rehabilitation, or conversion of buildings for use as emergency shelters; the provision of essential services such as medical care or counseling, including the development and implementation of homeless prevention activities, and payment of operating costs such as rent, insurance, and utilities.

In fiscal year 1988, States, cities, and urban counties received $8 million in Emergency Shelter grants. Approximately $4.6 million was allocated to 309 Entitlement communities, with individual amounts determined by formula. States distributed approximately $3.4 million to cities and counties within their jurisdictions.

As in the CDBG Entitlement Program, States and communities are not required to report to HUD the ages of individuals who benefit from their recipients activities. Consequently, the level of benefits to the elderly cannot be determined with certainty. However, according to a HUD survey of shelter managers conducted in September 1988, approximately 2 percent of the homeless persons occupying shelters on a typical night are 65 years of age or over.

IV. POLICY DEVELOPMENT AND RESEARCH

A. AMERICAN HOUSING SURVEY

The 1985 National American Housing Survey, released December 1988, and subsequent biennial national surveys, contain special tabulations on the housing situations of elderly households in the United States. The tabulations are in the same format as those produced in previous years for Blacks and Hispanics, for households in the four census regions, and for central cities, suburbs, and non metropolitan areas. An elderly household is defined as one where the householder, who may live alone or be the head of a larger household, is aged 65 years or more. The tabulations include information on housing and neighborhood characteristics of the previous housing of recent movers, both owners and renters. Special information is provided on households in physically inadequate housing or with excessive cost burdens, and on households in poverty. Separate data are provided for elderly Black and Hispanic households.

B. HOME EQUITY CONVERSION MORTGAGE INSURANCE DEMONSTRATION

Under the Home Equity Conversion Mortgage Insurance Demonstration, the Department of Housing and Urban Development will insure 2,500 reverse mortgages on the homes of elderly homeowners, enabling them to convert their home equity to cash. Payments received by borrowers from lenders do not have to be paid back until the the borrower moves or dies and the property is sold. HUD will insure lenders against losses that could occur if the proceeds from the sale of the property are not sufficient to pay off the mortgage balance.

The demonstration was authorized by the Housing and Community Development Act of 1987. Reservations were allocated among the 10 HUD Regions in proportion to each Region's share of the Nation's elderly homeowners. In January 1989, HUD Regional Offices of Housing accepted applications from lenders for 50 reservations apiece, and in February 1989, they held random drawings to select a total of 50 lenders. The final rule was published in the Federal Register on June 9, 1989, and the program became effective on July 24, 1989. Lenders are currently issuing mortgages under the program.

C. REPORT ON SUPPORTIVE SERVICES FOR THE FRAIL ELDERLY

The report, *Providing Supportive Services to the Frail Elderly in Federally Assisted Housing*, prepared by the Urban Institute was submitted to Congress. The report addresses four areas regarding housing and supportive services for the frail elderly. The report first estimates the number of elderly persons in federally assisted housing who are at "significant risk of institutionalization," measured in terms of needing assistance with daily living activities. The report estimates that roughly 105,000 residents of assisted housing over the age of 65 are at risk. This represents about 7 percent of the over-65 population in need of assistance with at least one activity of daily living. This number is larger than the number who will actually required institutionalization within the next years or two, but it is less than the one-third of those elderly assisted housing residents who have some degree of frailty. Second, the report identifies and assesses a number of alternative approaches for providing supportive services. The report reviews existing Federal, State, and private sector programs and examines several new concepts in service delivery systems. A key finding is that many States have established effective programs for providing services to their frail populations. Third, the report examines potential State and Federal funding streams for financing these delivery systems. Finally, the report provides recommendations for possible demonstration programs.

D. HUD-HHS SERVICE INTEGRATION PROJECT

This project involved coordinating and integrating the delivery of housing and other services for the frail elderly at two demonstration sites in Florida. The project ended in February 1989, with the final report delivered in May. Products from the project include: (1) Senior Connection, a widely advertised, toll-free number providing a central point of access to information and referral services for the elderly; (2) the Housing Connection, an automated housing resource directory consisting of a software package and user manual that allows a locality to enter local housing information into existing formats (clients, who phone in, are then screened and sent printouts profiling suitable facilities in the area that meet their needs); and (3) an information and Client Tracking System which consists of a network of micro computers using telecommunications to link a variety of service agencies through a common client profile allowing user agencies to screen clients for different programs including assisted housing. This enhances local ability for case management.

The State of Florida has used the HUD-HHS Service Integration Project as a catalyst to expand the results of the project statewide using existing State and Administration on Aging Funds. The three project staff positions in the Florida Department of Health and Rehabilitative Services have been made permanent in a unit called Better Living for Seniors Program. The goal of this program is to implement and expand results of the Service Integration Project statewide. Senior Connection has been expanded into a statewide system called Better Living for Seniors Central Access Phone Sites with a toll-free phone line in each of Florida's 67 counties. More than half of these counties have requested their free copies of the Housing Connection automated housing resource directory. The 5-year plan of the State project includes expanding the automated housing resource directory to include other resources for seniors (June 1990), and eventually expanding the information and Client Tracking System to provide a statewide model for case management.

E. ADAPTABLE HOUSING MANUAL

The 1987 publication *Adaptable Housing* was reprinted and continues to be widely disseminated. The publication promotes the design and construction of housing in which the basis structure and elements are accessible, in terms of entry and circulation, allowing other features to be added or altered easily to meet the special needs of a resident. While the concept of adaptability emphasized the needs of persons with disabilities, it has equal application for eldery persons. Elderly persons would benefit from such features as the ability to lower overhead kitchen cabinets or the ability to adjust the height of a kitchen counter to work while sitting. The most important benefit of adaptive housing to elderly persons is that such features would enable persons to remain in their homes as they age. Adaptable features, which would be in standard configurations today, could be adapted easily to meet the future needs of a person as their abilities change due to aging, illness, or injury.

F. PROGRAM FOR THE CHRONICALLY MENTALLY ILL HOMELESS

The Program for the Chronically Mentally Ill Homeless is an initiative of the Robert Wood Johnson Foundation, HUD, and HHS to support communitywide projects aimed at coordinating and expanding services for the chronically mentally ill. These projects are providing a broad range of health, mental health, social services, and housing options to help the chronically mentally ill function more effectively in their everyday lives and avoid inappropriate institutionalization.

Under the program, the foundation is providing approximately $28 million in grants and low-interest loans to 9 of the Nation's 60 largest urban centers with populations larger than 250,000. As part of its program, HUD has provided 1,125 Section 8 Existing Housing certificates worth $77 million to local housing authorities for use by mentally ill clients in housing designed for them. The National Institute of Mental Health is co-sponsoring an evaluation of the program with the foundation. The Social Security Administration is working with grantees to improve the efficiency and effectiveness of the disability determination process.

Nine cities are participating in the program: Austin, Baltimore, Charlotte, Cincinnati, Columbus, Denver, Honolulu, Philadelphia, and Toledo. All nine have developed housing plans incorporating shelter for their homeless populations affected by chronic mental illness. More than half of the Section 8 certificates are now being used for independent living situations, with the remainder already targeted as part of each city's housing plan. More than 35,000 people with chronic mental illness are now receiving services funded under the program. Examples of projects are listed below:

> Austin, TX: A mobile outreach team has connected more than 100 homeless people who lived under bridges or in alleys with a wide range of services. Another 160 people are using a client-operated drop-in center and social club.
>
> Baltimore, MD: A new central mental health authority, Baltimore Mental Health Systems, Inc., is now providing administrative and fiscal oversight to a complex system of community mental health agencies.
>
> Charlotte, NC: When the project was initiated, only 750 people with chronic mental illness were being served by the mental health system. The number has now doubled.

In a very short period, this initiative has encouraged Governors, mayors, State legislators, health providers, housing experts, and the public to work together to build a better system to care for the seriously mentally ill, which has the potential of preventing many persons from becoming or continuing to be homeless.

V. Fair Housing and Equal Opportunity

On September 18, 1988, the President signed the Fair Housing Amendments Act of 1988. This Act extends the protections of the Fair Housing Act of 1968 to families with children and the handicapped and provides enforcement powers so the Federal Government can assist those discriminated against by helping them secure damages and other appropriate remedies.

Congress demonstrates its concern for the elderly in the Act by defining a category of "housing for older persons" which is exempt from the requirement of nondiscrimination against families with children. Such housing is defined as (1) housing for the elderly provided under any State or Federal program designed and operated for this purpose, (2) housing intended and operated for occupancy by persons 62 or older, and (3) housing intended and operated for occupancy by at least one person 55 or older per unit. "Over 55" housing must have significant facilities and services designated to meet the physical or social needs of older persons or show that provision of such facilities and services is impracticable and that such housing is necessary to provide important housing opportunities for older persons. The Fair Housing Amendments Act was effective March 12, 1989.

The Department continues to process complaints of age discrimination in HUD programs under the Age Discrimination Act. During 1989 HUD received seven complaints alleging age discrimination. Three of the seven have been forwarded to the Federal Mediation and Conciliation Service for mediation. Two were returned to complainants due to lack of jurisdiction. Two are now being processed by HUD.

ITEM 8. DEPARTMENT OF THE INTERIOR

DECEMBER 6, 1989.

DEAR MR. CHAIRMAN: Secretary Lujan thanks you for your letter of October 11, 1989, concerning the annual report of Developments in Aging, 1989. He has asked me to submit the report for the Department of the Interior and to express his appreciation to the Committee for printing the Department's full report in the Senate Special Committee on Aging publication in 1988. We are pleased that the report was widely distributed, including Congress, governmental agencies, professionals, academics, journalists, and interested individuals.

Interior's bureaus and offices have submitted their reports on the Developments in Aging, 1989, and their reports are presented in Attachments A-N. Following are summary highlights from their reports:

The Office of Personnal (Attachment A) reports that the Department employed 291 persons 70 years of age and older which represented a 1.7 percent decrease from the 1988 report, and 19 of the employees were 80 years and older who worked varied schedules from full-time to part-time and intermittent. The Office of the Secretary Personnel (Attachment B) submitted that they are committed to serving the needs of the elderly by providing accessibility to employment opportunities and by providing training and other services to those older employees who wish to remain active in the work force, 56 percent of the employees are over age 40, 91 employees are over age 60, 5 employees are over age 70, older employees are represented in a wide variety of occupations, outreach efforts with no restrictions according to age, the encouragement of managers and supervisors to insure fairness in the treatment of all employees regardless of age, the recognitioin of aging employees by awards and ceremonies, and the providing of equal accessibility to Interior buildings for older persons. The Office of Equal Opportunity (Attachment C) published a final rule on the Discrimination Act of 1975 that sets Interior's policies and procedure in nondiscrimination on the basis of age in federal financial assistance programs, a Secretarial publication on Equal Opportunity for all that covers policies and commitment on age discrimination in employment practices, a quarterly publication for members and supervisors on age discrimination laws and related policies, the processing of complaints on age discrimination that showed a 60 percent decrease in complaints from last year, the conduct of civil rights compliance reviews of federally assisted programs and activities, 250 cases of technical assistance and training, a public notification program for non-English speaking people, and the establishment of systems and programs to insure nondiscrimination on aging.

Also, the Office of Historical and Black Community University programs and Job Corps (Attachment D) stated that they continue to explore and encourage projects in aging in their dealings with the historically black college and university community. The Bureau of Reclamation (Attachment E) reports several areas of emphasis in activities and programs for aging individuals, including agreements with other agencies and organizations to promote work opportunities with the U.S. Department of Agriculture and Green Thumb, providing opportunities for senior citizens to serve as volunteers, employment opportunities for retirees and older persons in technical and administrative professions, emphasis on facility and program accessibility for individuals who are disabled and/or aging throughout the bureau's vast waterway and dam projects, pre-retirement seminars for employees who are within five years of retirement, many outdoor recreation opportunities for retired and senior citizens, support of the Reclamation Employees Association that includes retirees, and award and recognition ceremonies for senior employees that included 42 service awards in 1989. The Bureau of Indian Affairs (Attachment F) provides social services and financial payments to eligible elderly Indians and their families who reside on or near reservations, including counseling and support services, adult protective service for the safety and health of the elderly, adult custodial care in the home or an institution, and financial assistance to elderly Indians with restricted Individual Indian Monies Accounts. The Bureau of Mines (Attachment G), as a scientific organization, submits that it values the technical expertise and experience from senior individuals through temporary hiring authorities to employ reemployed annuitants as members of the Secretary's Advisory Committee or college/university faculty, the employment of 203 employees over age 60 in the bureau compared to 178 last year, the conduct of retirement counseling and seminars for employees, the presentation of service awards to senior employees, and internal and external employment policies that support the interests and needs of the aging.

The Minerals Management Service (Attachment H) reports that they had 1,161 older employees that represented 55 percent of their total work force with 16 employees over age 65 and eight over age 70, older employees are in a variety of occupations such as computer specialists and physical scientists, older workers are addressed through the employee development program, retirement planning workshops attended by 103 employees, management and supervisory training in equal employee opportunity at a cost of $44,376, and assistance to older Americans through the decrease in foreign oil dependency. The Geological Survey (Attachment I) submits that their employment policy stresses equality of opportunity so that older employees can be used with extensive experience in scientific and mapping programs, 39 persons are employed who are over age 70 and 5,072 employees are between age 40 and 70, 139 people over age 55 are reemployed annuitants, a volunteer program that uses the talents of older persons in scientific and other areas, data by the National Center indicated that 27 percent of the Fairfax County population will be over age 55 by the year 2010, the conduct of a survey of all facilities nationally to determine physical barriers for disabled and senior individuals, service awards that included 37 people for 50 years of service and 67 people for 32-40 years of service, and pre-retirement planning programs and counseling services for older employees.

Also, the Office of Surface Mining (Attachment J) reports that it relies heavily on the 20 percent of their employees over age 50 which represents an increase by 2.2 percent over last year, the issuance of a policy statement that stresses nondiscrimination of older individuals, the use of pamphlets and video tapes on age discrimination, upward mobility training for supervisory personnel, and bureau programs that protect the lives and property of older Americans across the country. The Office of Territorial and International Affairs (Attachment K) states that they place no restrictions on the employment of elderly people and does not let age enter into consideration for job training and placement, and provides assistance upon request on programs for the elderly in the territories that are self-governed. The Fish and Wildlife Service (Attachment L) reports that 52 percent of their 7,535 employees are over age 40, representing an increase over past years, 22 percent of the workforce has been employeed in the Service for more than 20 years, approximately 7,500 hours of volunteer service from over 1,500 senior citizens in fish and wildlife activities, including the cleanup of the Alaskan oil spill and inventoring bird populations, the use of senior volunteers in visitor centers at refuges and fish hatcheries and the celebration for the commemoration of the Kiluasa Lighthouse, programs and activities for senior citizens at the refuges and hatcheries, the assessment of all programs and activities for accessibility to disabled and senior individuals, educational courses for seniors that include field trips and film viewing, and the use of Golden Age Passports by senior citizens that provides them with wildlife and fishery benefits.

Also, the National Park Service (Attachment M) submits that a central office was established to insure that special populations like the aging receive the full benefits of the national parks and historical sites, an increase in the number of older citizens in the Volunteer in the Parks Program in cooperation with the American Association of Retired Persons, the operation of the Golden Age Passport Program that provides free lifetime entrance permits or lower entrance fees to recreational areas for people over age 62 with the number of passports increased to 570,529 issued, the removal of physical barriers and the adaptability to hearing and visually impaired by such as available wheelchairs at park locations and captioned audio visual programs, follow-up on recommendations from the President's Commission on Americans Outdoors concerning the interests and abilities of older Americans for the future of parks and other recreation resources, the monitoring of grants to State and local governments for recreation land acquisition and development covering age discrimination, financial and technical planning assistance to states and urban communities on programs for senior citizens, and an increase in the employment of people over age 60 in the National Park Service.

It is a pleasure to submit our Developments in Aging, 1989, report, and we hope you are pleased by the diversified and numerous Interior activities and programs that address the needs and interest of Interior employees and consumers. The Department strives to insure the rights and desires of aging in the various programs and 'services. Secretary Lujan and all of Interior value the efforts of you and the Special Committee on Aging, and we look forward to continuous cooperation with your committee in every way possible. Thank you for the opportunity to submit our report for 1989.

Sincerely,

Dr. Andrew S. Adams,
Special Projects Administrator Policy, Budget and Administration.

Attachments.

ATTACHMENT "A"

Memorandum to: Special Projets Administrator, PBA.
From: Director of Personnel.
Subject: 1989 Senate Committee Report on Aging.

This is in response to your memorandum of October 16, 1989, requesting information on aging employees in the Department of the Interior.

As of September 30, 1989, there were 291 persons 70 years of age and older. This figure represents a 1.7 percent decrease from the 1988 report. Of the 291 employees, 19 were 80 years and older. Work schedules varied for employees in the 80 year and older age group, e.g., 26.3 percent worked on a full-time basis, 15.7 percent had part-time work schedules, while 58 percent of employees 80 years of age and older were employed on an intermittent basis.

Attached is a statistical breakdown of persons 70 years and older.

If you have any questions, please contact Donna Waters-Davis on 343-7764.

1989 REPORT TO THE SENATE COMMITTEE ON AGING

U.S. DEPARTMENT OF THE INTERIOR 70 YEARS AND OLDER

Age:	*Total number of employees*
70	60
71	55
72	33
73	29
74	24
75	25
76	14
77	14
78	12
79	6
80	10
81	2
82	4
83	0
84	1
85	0
86	0
87	0
88	1
89	0
90	0
91	0
92	0
93	1
Total	[1] 291

[1] 0.4 percent of total work force as of September 30, 1989.

ATTACHMENT "B"

Memorandum to: Special Projects Coordinator Assistant Secretary Policy, Budget and Administration.
From: Personnel Officer Office of the Secretary.
Subject: Report on Developments in Aging, 1988.

This is in response to your memorandum of October 16, 1989, regarding the subject program in fiscal year 1989. Although the Office of the Secretary does not administer any programs intended exclusively to benefit the aging, our personnel program is committed to serving the needs of the elderly by providing access for elderly citizens to employment opportunities and by providing training and other services to those older employees who wish to remain active in the work place.

We currently employ older persons in a wide variety of occupations; 56 percent of our work force is over the age of 40, a slight decrease from 59 percent in FY 1988. The number of employees over age 60 has increased from 5.8 percent to 6.3 percent of the total work force. Ninety one employees are over age 60, which is an increase of 8 since FY 1988. Five employees are over the age of 70, a decrease of one since FY 1988.

Older employees are represented in a wide variety of occupations, particularly administrative and legal and provide a depth of experience that will be difficult to replace if these employees leave the work force. Continual training of these employees will be necessary to retain them and their valuable skills.

We are very much aware of the demographic changes taking place in the work force; the over 40 population in the Department and the country as a whole is growing rapidly. In order to meet our demands for skills we must creatively utilize the resources of the older population. The Office of the Secretary provides equal opportunity to all applicants and employees regardless of age and our outreach efforts include all segments of society and make no restrictions according to age. Managers and supervisors are encouraged to ensure fairness in the treatment of all employees regardless of age and to recognize the contributions of employees who have served the Department for many years by presenting length of service awards at local ceremonies and by supporting the hiring and training of older persons whenever possible.

Our Division of General Services continues to provide equal access to Interior buildings for older persons when entering to inquire about Interior programs or opportunities for employment with the Office of the Secretary.

J. LYNN SMITH.

ATTACHMENT "C"

To: Dr. Andy Adams, Special Projects Administrator Policy, Budget and Administration.
From: Director, Office for Equal Opportunity.
Subject: Report on Developments in Aging, 1989.

During fiscal year 1989, the Office for Equal Opportunity (OEO) published a final rule effectuating the requirements of the Age Discrimination Act of 1975, as amended, (P.L. 94-135), [54 FR 3596, January 25, 1989]. This new rule will be codified at 43 CFR 17, Subpart C. The rule sets forth Interior's policies and procedures with respect to ensuring nondiscrimination on the basis of age in Federal financial assistance programs. Although the regulation is intended to prevent unreasonable discrimination against the elderly, the nondiscrimination requirements of this rule apply to persons of all ages with certain exceptions.

In cooperation with OEO, the Secretary of the Department of the Interior issued a publication entitled, *Equal Opportunity For All: A Message from Secretary Manuel Lujan, Jr.* The publication unequivocally states the Secretary's policies and commitment in proscribing age discrimination in Federal employment practices, at Interior, and in programs and activities receiving Federal financial assistance. OEO also has created a newsletter entitled, *Equal Opportunity Highlights*. This new departmentwide, quarterly publication serves as an important medium for proclaiming to Interior's managers and other supervisory personnel information on Federal age discrimination laws and related policies.

During FY 1989, in Interior's federally assisted programs, OEO received and processed a total of 5 complaints alleging discrimination on the basis of age, in comparison to 13 received in FY 1988. The FY 1989 complaints pertained to State and local recipient employment practices, and, federally assisted State fishing and hunting recreational programs. Generally, the program related complaints concerned higher fees that elderly, fixed income, nonresidents had to pay as a condition to be licensed to hunt or fish in various jurisdictions throughout the United States. The Department of the Interior also conducted a total of 6,872 post award civil rights compliance reviews of its most user-oriented federally assisted programs and activities. During the course of these compliance reviews, recipient service delivery practices among other concerns were reviewed, at State and local levels, to determine whether they were being provided equitably to all persons regardless of age. These reviews were conducted in light of the requirements of the Civil Rights Restoration Act of 1987. To this effect, the reviews were not limited in scope to just that part of the program that received Federal Aid, instead all aspects of the recipient's operations were assessed for civl rights compliance purposes.

Technical assistance and training were conducted in over 250 instances for Federal, State, and local program personnel regarding the Department's various age discrimination policies. In such instances, State and local recipient officials were acquainted with the requirements of the Age Discrimination Act and assisted in complying with the same. OEO continues to manage a national public notification program for apprizing the public of Interior's age discrimination policies and the procedures for filing complaints. In FY 1990, OEO plans to broadened this public notification program to research program beneficiaries who are unable to speak or understand the English language.

Relative to Interior's Federal work force, allegations of age discrimination remains one of the foremost grounds under which equal employment complaints are filed with the Department. In an effort to reverse this disturbing trend, OEO has active systems and programs in place for ensuring compliance with the requirements of the Age Discrimination in Employment Act of 1967. This law provides for nondiscrimination on account of age in Federal employment. In advancing the requirements of this law, OEO promulgated a comprehensive training module to all bureaus and offices of the Department for the purpose of enhancing their Equal Employment Opportunity Counseling Programs. The module described Departmental policies and procedural standards for training Equal Employment Opportunity Counselors in how to informally resolve age discrimination complaints. Moreover, technical assistance and direct personnel support have been provided by OEO to Interior's various bureaus and offices in the areas of complaints processing, investigations, informal resolutions, and equal employment sensitivity training programs. But most important, OEO has effectuated approaches for streamlining the processing of complaints and reducing complaint backlogs which, for Interior, translate into less time and expense in resolving are related complaints.

In an effort to eliminate architectural barriers and ensure program accessibility for handicapped and elderly persons in Interior's federally conducted programs, over 14,281 self-evaluations were accomplished of bureau and office operations. In 1,069 instances, transition plans were developed and implemented to promote nondiscrimination and barrier-free access in these programs.

Again, thanks for permitting this Office the opportunity to report on its programs and activities for ensuring nondiscrimination on the basis of age.

CARMEN R. MAYMI.

ATTACHMENT "D"

Memorandum

To: Dr. Andy Adams, Special Projects Administrator, PBA.

From: Ira J. Hutchison, Director, Office of Historically Black College and University Programs and Job Corps.

Subject: Report on Developments in Aging, 1989.

This is in response to your October 16, 1989, memorandum concerning the above subject. While this Office does not currently have programs designed specifically for the aging, we continue to explore and encourage such projects in our dealings with the historically black college and university (HBCU) community.

Thank you for this opportunity to report on activities involving the aging.

IRA J. HUTCHINSON.

ATTACHMENT "E"

To: Assistant Secretary—Policy, Budget and Administration (PBA), Washington, DC, Attention: Dr. Andy Adams (4340–MIB) (343–5521).

From: Chief, Personnel Management Division, WBR, Denver Office, Denver, CO.

Subject: Report on Developments in Aging—1989 (Your Memorandum Dated October 16, 1989) (Aging Developments).

Enclosed is the above-referenced report from the Bureau of Reclamation in response to your request.

The Bureau of Reclamation supports activities and programs which benefit aging individuals. There are several areas of emphasis, which are described as follows:

A. *Agreements With Other Agencies.*—Results related to agreements with other agencies and/or organizations are described as follows:

1. In Reclamation's Upper Colorado Region, the Weber Basin Job Corps Civilian Convservation Center, Ogden, UT, has an established Human Resource Agreement with the USDA, Forest Service, consistent with Title V of the Older American Community Service Employment Act of 1973. The purpose of this agreement is to foster and promote useful part-time work opportunities in community service activities for unemployed low-income persons who are 55 years of age or older. Two individuals are presently employed at the Weber Basin Center under this agreement; one individual is employed as a maintenance worker and the other in a clerical position. One of the individuals employed under this agreement was a new appointee in 1989.

2. An established Host Agency Agreement between Green Thumb, Inc., and the Collbran Job Corps Civilian Conservation Center, Collbran, CO, is utilized to employ

older Americans at the center. Green Thumb, Inc., administers a Senior Community Service Employment Program by virtue of a grant with the U.S. Department of Labor. Three individuals are currently employed at the Collbran Job Corps Center under this agreement; two of these individuals are employed as clerical workers and the third person is employed as a maintenance worker.

B. Reclamation has just received approval to accept volunteer services. It is anticipated that many volunteer activities will benefit senior citizens either by giving them the opportunity to serve as volunteers or as recipients of enhanced services.

C. *Employment.*—In employment, Reclamation stresses equality for all applicants and employees. Vacancy announcements are open to all qualified individuals, regardless of age. Reclamation employs older persons in a broad spectrum of occupations and uses re-employed annuitants when appropriate. Reclamation, as an engineering organization, employs the advanced level of skills and expertise which older employees can impart to other workers. Reclamation also uses retired individuals as members of boards and commissions and in a variety of technical, scientific, or administrative professions.

D. *Handicapped Access.*—Reclamation has increased efforts to make our projects and facilities more accessible to handicapped individuals. Since a sizable percentage of the aging population experiences some degree of disability, these modifications make Reclamation facilities more usable and enjoyable for the elderly as well.

For example, as a part of the remodeling effort of the Lower Colorado Regional Office, Reclamation is continuing to make buildings more accessible for handicapped individuals which often affect senior citizens. One of the buildings in Boulder City is currently being renovated to add handicapped ramps and restrooms. It is planned to add an elevator and remodel the restrooms in the Administration Building during 1990 which will provide improved handicapped access.

Another example is the Pacific Northwest Region, which has identified and completed extensive projects to make recreation facilities accessible to the aged and all impairment groups in 1989. Facilities have been completely modified at Sugarloaf Camp in Cascade, Henry Haag Reservoir, and Ririe Reservoir in the state of Idaho; at Immigrant and Howard Prairie in the state of Oregon; and at leased facilities in the state of Washington.

In the Upper Colorado Region, special emphasis was placed this year in making the visitor centers at Colorado River Storage Project (CRSP) dams and reservoirs accessible. Specific activities included modification of restrooms, revamping displays, revising literature, and modifying tour routes.

E. *Pre-Retirement Seminars.*—Reclamation routinely offers pre-retirement seminars for employees within 5 years of retirement. The seminars are for both employees and their spouses and cover retirement life style as well as financial considerations such as health and life insurance, retirement benefits, and financial planning.

F. *Recreation.*—Recreation opportunities are available at many Reclamation facilities for water-oriented activities such as fishing, swimming, boating, and camping. These leisure activities traditionally attract the retired and senior citizen population.

G. *Reclamation Employees Associations.*—Reclamation has active Reclamation Employees Associations (REA). These associations mail regular correspondence to retirees and encourage them to stay current with Reclamation activities by participating in various civic and recreational REA functions and events.

H. *Awards and Recognition.*—During fiscal year 1989, the following employee special awards were presented: 24 Superior Service Awards, 15 Meritorious Awards, and 3 Distinguished Service Awards. Many of these awards were received by senior employees in their fifties or older. These awards were presented in special ceremonies, where recognition was also given to senior employees for both length of service and outstanding performance. Also, Reclamation recognized senior citizens for thier contributions to Reclamation programs through the citizen's award program. During fiscal year 1989, 10 citizen's awards were presented, a majority to senior citizens.

ATTACHMENT "F"

Memorandum to Dr. Andy Adams, Special Projects Administrator, PBA.
From: Acting Assistant Secretary—Indian Affairs.
Subject: Report on Developments in Aging, 1989.

This responds to your request for a report on the activities of the Bureau of Indian Affairs (BIA) on Developments in Aging, 1989.

The Bureau of Indian Affairs, Division of Social Services, provides services and financial payments to eligible Indian individuals and families, including the elderly, who reside on or near reservations, and who are not eligible for such assistance from any other Federal or state source. Social Services provides counseling and support services to the elderly upon request or referral from other sources. If necessary, adult protective services are provided to ensure the safety and health of the elderly. Another component of services to the elderly is Adult Custodial Care, which is provided in locales where public funds are not available. Custodial care is essentially protective services of nonmedical care to an eligible person when due to age, infirmity, physical or mental impairment, that the person requries care from others in his or her daily living. The non-medical care is provided in the least restrictive environment including the individual's home, group home setting or an institution. Social Services also provides services to elderly Indians with restricted Individual Indian Monies Accounts on budgeting of financial matters and intervenes on behalf of the Indian upon request or need.

ATTACHMENT "G"

Memorandum to: Andy Adams, Special Projects Administrator, Office of the Assistant Secretary—Policy, Budget and Administration.
From: Director, Bureau of Mines.
Subject: Report on Developments in Aging, 1989.

This is in response to your memorandum dated October 16, 1989, concerning the Annual Report on Developments in Aging.

As a scientific organization, the Bureau values the technical expertise that usually typifies a person who has had long and extensive experience in research, analysis, development and assessment activities. We continue to rely on the expertise of senior individuals for highly specialized technical and scientific positions. This is accomplished through temporary hiring authorities utilized to employ reemployed annuitants, members for the Secretary's Advisory Committee, and college/university faculty.

At this time last year, the Bureau of Mines had a total of 178 employees age 60 and above. This year that work force increased to 203 employees age 60 and above. This increase was primarily due to a large number of employees reaching their 60th birthday during this reporting period. Servicing personnel offices provided individual retirement counseling for all interested employees who were undecided about retirement. A number of field installations issued periodic information and reminder notices regarding pre-retirement seminars for persons who would be eligible for retirement within a specific number of years. During 1989, the Bureau awarded four employees Superior Service Awards, and two employees Meritorious Awards. These awards were received by senior employees in their fifties or older.

A review of our internal and external employment policies indicates that the Bureau of Mines has and continues to support the interests and needs of the aging through its diversified prograrms and service. We continue to stress equal treatment for all applicants and employees.

ATTACHMENT "H"

Memorandum to: Dr. Andy Adams, Special Projects Administrator. Policy, Budget and Administration.
From: Director, Minerals Management Service.
Subject: Report on Developments in Aging, 1989.

This is in response to your memorandum of October 16, 1989, requesting our report on Developments in Aging for 1989. The Minerals Management Service (MMS) continues to work to support programs for older Americans. Our work force statistics are as follows:

—The MMS work force, age 40 and over, continued to increase during the past year from 54 percent in 1988 to 55 percent in 1989 (1,161 of 2,111). Of this total, 110 employees are over age 60, an increase of 10 from 1988 (5.2 percent) with 23 workers over age 65 and 9 over age 70. In 1988 MMS employed 16 workers over age 65 and 8 over age 70.

—Older employees are well represented in a variety of occupations within MMS including computer specialists, accountants, auditors, engineers, and physical scientists.

—The needs of our older workers are addressed through our employee development program. Retirement planning workshops were attended by 103 MMS employees in 1989. Our managers and supervisors continue to receive equal employment opportunity training which includes age discrimination and how to avoid it. The MMS spent $44,376 on such training during this past fiscal year.

—The MMS mission continues to assist older Americans in the improvement of our economy through the decrease in our dependence on foreign oil.

The MMS has a strong commitment to all our employees, including our older workers. Our older workers are a source of valuable knowledge and experience and a significant factor in the success of the MMS mission.

Thank you for this opportunity to report on our activities involving the aging.

Attachment "I"

Memorandum to: Dr. Andy Adams, Special Projects Administrator Policy, Budget and Administration.
From: Personnel Officer.
Subject: Report on Developments in Aging, 1989.

This is in response to your memorandum of October 16, 1989, requesting information on the activities of the U.S. Geological Survey (USGS) affecting our older citizen during the past year.

The USGS employment policy stresses equality of opportunity for all Americans. Qualification requirements are based on the knowledges, skills, and abilities required for each position being filled. This can prove to be beneficial to older employees, many of whom possess long and extensive experience in water resource, geologic or mapping programs. Physical standards are kept at appropriate levels needed for safe and effective performance, but at levels low enough to otherwise accommodate older employees successfully. The bureau presently employs 39 persons who are 70 years of age and older, and 5,072 persons age 41 to 69 years old, out of a total work force of 10,556 people. Also, we employ 139 people who are 55 years of age or older as reemployed annuitants. These valued employees serve in a broad spectrum of grade levels and professional, technical, and clerical support occupations.

Since June 1986, the USGS has conducted a very active, mutually beneficial, volunteer program in which science-oriented individuals donate their time and skills in support of the bureau mission. An important element in this "Volunteer for Science Program" has been the full utilization of the talents of older persons, particularly USGS retirees. Under this program, volunteers of all kinds provide valuable assistance and services to the USGS to supplement our regular staff and programs wherever there are bureau activities in the United States. During the past year there were at least 93 USGS retirees and 44 USGS Scientists Emeriti performing volunteer work under this program. In addition, 20 USGS retirees have signed volunteer agreements to provide personal support and asssistance to the official activities of the USGS Visitor's Center located in the bureau's National Center in Reston, Virginia. The USGS derives many direct benefits from the older persons associated with this volunteer program. Because of our past success, our bureau will continue to encourage participation in and support of volunteer activities by older citizens and USGS retirees.

The USGS, as an employer, is well aware of the demographic changes that are taking place in the United States, particularly with regard to the increase in the percentage of citizens who will be older. A new Census Bureau study indicates that there will be more than a million people over the age of 100, and nearly 3 million citizens who will be 95 to 99 years old, by the year 2080. By the year 2000, the Washington metropolitan area's residents aged 65 and older will number almost 430,000. This will be nearly double their number in 1980. During the same period, the 75-and-older population in the area will also more than double. Fairfax County, where the USGS National Center is located, recently provided data that indicated that 27 percent of the county's population will be 55 years old or older by 2010. Accordingly, the USGS employment program is dedicated to making full use of the skills and abilities of all our citizens, but particularly those who are older.

In addition to the needs of our handicapped employees, the USGS has conducted surveys of all our facilities, nationwide, to determine if there are any physical barriers which might prevent or discourage access by older employees or the general public to our facilities and offices. Facilities are designed and modified, wherever necessary, to meet the needs of handicapped persons and older employees or citizens.

During the past year, the USGS also recognized the important career contributions of its older employees by presenting a large number of service awards. Three employees received 50-year length of service awards, 37 people received 40-year length of service awards, and 108 employees were given 30-year service awards. This large group of awards is indicative of the fact that the USGS encourages and allows its older employees ample opportunities to fulfill their career and work needs. The expertise, experience, and scientific and technical knowledge represented by these older employees have been invaluable to the activities of the bureau, and we are very proud to recognize their continuing productivity.

Several examples of the contributions of typical older employees include the following: (1) Thomas Maddock, Jr., age 83, a reemployed annuitant who provides expert advice to the Chief Hydrologist in the fields of river hydraulics, sediments, and sediment transport. Mr. Maddock has more than 55 years of effective Federal service and possesses considerable knowledge and research experience in hydrology; (2) John D. Hem, age 73, currently a Senior Research Scientist, whose chemical research, during his more than 50 years of creative Federal service, has greatly contributed to our Nation's knowledge of geochemical and hydrologic principles governing rock weathering, mineral synthesis, and ground-water circulation. Recipient of the Meritorious and Distinguished Service Awards, Mr. Hem has many outstanding achievements to his credit, and has made many exceptional contributions to the programs of the Department of the Interior and the USGS; and (3) Dr. Ralph L. Miller, age 61, is a reemployed annuitant with a world-wide reputation as an expert on the geology of energy resources, particulary hydrocarbons. Dr. Miller provides advice on Central America and on programs in Latin America under the Caribbean Basin Initiative. He has more than 50 years of outstanding Federal service to his credit.

These represent but a few of the continuing, significant activities of the bureau's older employees. The USGS clearly recognizes the value of the service of its older employees. Our basic personnel management practices include a strict adherence to nondiscrimination relative to age. Our bureau has a long track record for providing ample, fulfilling work opportunities for older employees, and beyond retirement for reemployed annuitants. In particular, we provide continual pre-retirement planning programs and counseling to help make the transition to retirement less traumatic for older workers. We also utilize a significant number of part-time positions which, in many cases, make it possible for older persons to be productively employed.

Our programs and actions clearly demonstrate that the USGS is strongly committed to a continual awareness of the need to insure that our older employees are provided sufficient opportunities to fulfill their personal career needs, and to allow our bureau to take maximum advantage of their knowledges, skills, and abilities. We are proud to be able to contribute to such a goal, and we will continue to strive to remove any barriers in employment which prevent full participation by our older employees.

ATTACHMENT "J"

Memorandum to: Dr. Andy Adams, Special Projects Administrator, Office of the Assistant Secretary—Policy, Budget and Administration.
From: Director, Office of Surface Mining.
Subject: Report on Developments in Aging, 1989.

In response to your memorandum of October 16, 1989, the Office of Surface Mining Reclamation and Enforcement (OSM) is pleased to submit its Annual Report on Developments in Aging for 1989.

The OSM relies heavily on the 20 percent of our employees who are 50 years of age or older. These employees account for 232 of our 1,163 total employees and include many of our executives and senior-level managers. Within the past year, the number of employees in this age group increased by 2.2 percent. Given the demographic forecast for the next decade, of a decrease in younger employees and an increase in older employees, it is clear that we will place an even greater reliance on our more mature employees.

As part of OSM's initiative to utilize, develop, and recognize its older employees, several efforts are being implemented. A policy statement has been issued stressing nondiscrimination of older individuals along with all other employees. This will be followed-up with the use of pamphlets and videotapes on subjects such as the prevention of age discrimination in the workplace. Furthermore, "age-neutral" policies and practices are emphasized in supervisory training and monitored with regard to employee participation in the Upward Mobility Program, all training programs, employee promotions, and the awards programs.

Finally, the various programs of OSM, to protect lives and property, provide considerable aid to our older citizens.

ATTACHMENT "K"

Memorandum to: Dr. Andy Adams, Special Projects Administrator, PBA.
From: Assistant Secretary-Territorial and International Affairs.
Subject: Report on developments in Aging, 1989.

Thank you for the opportunity to respond to your memorandum of October 16, 1989 on the above subject.

The Office of Territorial and International Affairs (OTIA) does not conduct special programs for any groups of people, including the elderly. It places no restrictions on employment insofar as the elderly are concerned and nor does age enter into consideration for employee training, special assignments, or promotions.

As previously reported, the territories under the jurisdiction of the OTIA are self-governing. The territorial governments are responsible for federally funded programs for the elderly under their jurisdication. This office is available at all times to assist them upon request.

ATTACHMENT "L"

Memorandum to: Andy Adams.
From: Deputy Director.
Subject: Report on Developments in Aging, 1989.

In response to your memorandum of October 16, 1989, I am pleased to provide information pertaining to individuals who are in their "prime". The Fish and Wildlife Service (Service) recognizes its responsibility of providing opportunities to all individuals, including its employees and the public it serves.

Of 7,535 Service employees, 52 percent are age 40 and above. Although in FY 1989 there was a decline of 51 employees age 60 and above, the number of employees between 40 and 49 increased by 144. These statistics show that the overall number of employees in the targeted areas have increased. In addition, the Service has benefitted from the expertise and experience of our personnel, especially since 1,631 employees or 22 percent of the workforce has devoted 20 or more years to our mission. One individual has almost spent half of a century with the Service (48 years). The breakdown is as follows:

Employees:	*Service time (years)*
1	48
9	40-44
299	30-39
1,322	20-29

Other contributions made to the Service involve the numerous hours (approximately 75,000) that over 1,500 senior citizens donated this past year. Several volunteers were utilized in the Alaskan oil spill. In addition to the actual clean up, other activities were equally important. Cal Lensink, a retired Service biologist, could have worked for oil companies because of his skill and demand. However, he chose to work for the Service by establishing a morgue for the wildlife and also identifying and later making inventories of the birds. Chris Provost created a wildlife rehabilitation facility that provided a place to care for sick and/or injured birds and other wildlife. Chris also trained and ultimately established a network of volunteers to help with the operation of the facility. Between other functions, he organized media conferences to assure accurate information was presented to the public involving oil spill issues.

Some of our older volunteers have also assisted with more pleasant activities such as celebrations. This past year, the Leadville National Fish Hatchery had its Centennial. To celebrate this event, its visitor center was renovated, a visitor kiosk was constructed, and a volunteer program was implemented. Two couples (one in their sixties and the other in their seventies) stayed on nearby campgrounds and provided approximately 1,000 hours during the summer months greeting visitors, conducting tours and assisting with the upkeep of the facilities and the grounds. With limited staff at the refuges and hatcheries, volunteers allow regular staff time to perform other duties. Having volunteers to almost or totally staff the visitor centers is not an unusual occurrence throughout the refuge system. In addition, the volunteers benefit by experiencing the joys of wildlife and interaction with people (up to 1,000 a day).

Another celebration was the commemoration of the Kilanea Lighthouse. Two volunteers made tremendous contributions to the commemoration's success. One individual used his scientific and engineering background to allow the lens of the lighthouse to rotate and once again become functional. The other, Ross Aikin, volunteered to gather information on the history of the 75-year-old lighthouse. What initially began as a small venture turned into something that Ross didn't even imagine; a little data became a book. He researched, wrote and published a book entitled "Kilauea Point Lighthouse—The Landfall Beacon on the Orient Run", of which he donated all the proceeds. In addition, he edits two newsletters, one of which is distributed to every 5th grade student in the State of Hawaii. (Ross is a finalist in the 1989 Take Pride in America national awards competition and also received the Director's Award.)

In addition to participation of volunteers, there are programs and activities that interest visitors, including some who are senior citizens. As a result of individuals becoming wiser (and older), the aging process has a tendency of producing inconveniences such as visual, hearing or physical impairments that involve making adjustments on their part and every other concerned individual. The Service has addressed this issue by completing an assessment of all programs, activities and facilities that are open to the public. A plan has been implemented to correct identified deficiencies, so that ultimately the activities and programs will be open and accessible to all persons.

Some of the programs that are offered include: the Elderhostel Program (must be 60) which offers educational courses for seniors that usually consist of field trips, interpretive programs, and film viewing (most of which have audio and visual components to assist visually and hearing impaired visitors). The visitors also make use of Golden Age Passports (one refuge alone issued 9,228) to observe the wildlife, etc. Another activity includes trail walks. Two individuals on the Flint Hills Refuge have heart problems and signed up with permits to walk in closed areas of the Refuge for their health. The walkers benefitted and the stations benefitted by having observers in the field to detect and report violations, unusual wildlife sightings and population estimates. Again, the Service is reciprocated with volunteerism by providing the use of its lands to the public. Although some of the activities may seem to be geared toward senior citizens, there are several comparable programs that are open to all individuals.

As illustrated, the Service utilizes and benefits from older individuals in many aspects of its operation, and in return, the Service gives them opportunities to take advantage of and enjoy the wildlife and its habitat.

ATTACHMENT "M"

Memorandum to: Special Projects Administrator, Budget and Administration.
Through: Deputy Assistant Secretary for Fish and Wildlife and Parks.
From: Acting Director, National Park Service.
Subject: Report on Developments in Aging, 1989.

The National Park Service, over the past few years, has made significant efforts to insure that the full range of the visiting public, including senior citizens, can get into our parks and once there, can participate in and receive the benefits of the programs and services provided.

One step taken by the National Park Service to improve accessibility, was to create a special unit in its Washington Office to monitor and coordinate the entire Systemwide effort. It was determined by NPS management that we should approach the issue in a comprehensive, organized way rather than on a project-by-project basis. Accordingly, in 1979, the Branch of Special Programs and Populations was established and staffed with individuals who have specific background and experience in recreation and park programming with special populations. The primary goal of the Branch is to develop and coordinate a Systemwide, comprehensive approach to achieving the highest level of accessibility that is feasible while at the same time, assuring consistency with other legal mandates of preservation and protection of the resources that we manage. Since its creation, the Branch has been working with resource persons in each of the Regional Offices and other NPS units to assess the current level of accessibility of our various parks, identify the barriers to accessibility, develop policies and guidelines regarding appropriate methods and techniques for improving access, and providing technical assistance and in-Service training on cost-effective approaches and program implementation. Through these coordinated efforts, the National Park Service has been recognized as a leader in opening opportunities to disabled persons and senior citizens as well.

At the present time, continued efforts are being made to increase the number of older citizens in the Service's Volunteer in the Parks Program and we are currently working with the American Association of Retired Persons (AARP). Since 1983, the number has increased from 4 percent to 10 percent.

Another major effort of the National Park Service, as it relates to senior citizens, is the operation of the Golden Age Passport Program. This passport is a free lifetime entrance permit to those recreation areas administered by the Federal Government that charge entrance fees, and is issued to citizens or permanent residents of the United States who are 62 years of age or older. The passport holder also gets a 50 percent discount on Federal use fees charged for facilities and services such as camping, boat launching and parking. Since 1975, when this program was changed from a 1-year permit to a lifetime permit, the Service has issued well over 3 million passports. In 1985, we reported that over 300,000 passports were issued by all Federal recreation agencies. In 1986, 302,153 passports were issued and in 1987, 368,569 passports were issued. Data for 1988 shows an increase to 570,529 Golden Age Passports issued. Statistical data for 1989 will not be available until early 1990, however, it is anticipated there will be an increase in the number issued.

The National Park Service is increasingly becoming more accessible for all citizens including the elderly and other special populations. This is due to our continuing efforts to remove barriers that inhibit special population groups from experiencing and enjoying the national parks. Many senior citizens, due to the aging process, who are experiencing the loss of hearing, problems with visual acuity and mobility impairments, benefit from these programs and facility modifications. Large type materials, captioned audiovisual programs, audio messages for the blind, and adaptations for wheelchairs users are all modifications from which the senior citizen can benefit. In 1986, the Service published the report of the 1982-83 Nationwide Recreation Survey (NRS). This report included a chapter on "Aging and Outdoor Recreation," which was based on a series of questions sponsored by the Administration on Aging and asked of respondents of 60 and over. A major user of the NRS data in 1986 was the President's Commission on Americans Outdoors. The commissions report, published in July 1987, emphasized the implications of an aging U.S. population and a greater diversity of interest and abilities among older Americans for the future of parks and other recreation resources.

The National Park Service continues to provide financial assistance to State and local governments for recreation land acquisition and development under the Land and Water Conservation Fund (LWCF) program. Under this and other financial assistance programs, the Service encourages and monitors grant recipients to ensure that adequate provisions are in place to ensure access to assisted recreation facilities and services for elderly citizens, in accordance with the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, as amended.

The Service provides financial and technical assistance to states for Statewide Comprehensive Outdoor Recreation Planning under the LWCF Act. One of the major objectives of such planning is to identify and address the recreation needs of special populations, including the elderly and people with disabilities. A number of urban communities also continue with special planning and recreation programming efforts for senior citizens initiated in earlier years with grants from the Urban Park and Recreation Recovery Program.

The National Park Service continues to monitor and identify the number of employees who are 60 and over. In 1988, the survey indicated a decrease in the number of employees in this age group. However, in 1989, the survey indicated that employees 60 and over are at all GS levels and showed an increase in the total number employed.

The National Park Service will continue to monitor this situation and will continue efforts to improve services to this age group.

ATTACHMENT "N"

Memorandum to: Dr. Andy Adams, Special Projects Administrator Policy, Budget and Administration.
From: Deputy Director.
Subject: Report on Developments in Aging, 1989.

This responds to your request for a report on the activities of the Bureau of Land Management (BLM) on Developments in Aging.

The BLM employs 88 individuals who are 65 years old or older, of which 15 are in their seventies. One employee is 80 years old. The employee skills range from a laborer, WG-2, to two Senior Executive Service employees. Most of the employees in this age group are on career appointments (66 employees). The BLM is aware of the high skills these employees possess. This is supported by the fact that one employee was hired on a career-conditional appointment at the age of 59. The BLM has also re-employed nine retired employees to utilize their expertise on a temporary basis.

Senior Volunteers.—The exact number of volunteers BLM recruited in 1989 has yet to be determined; however, on average, seven percent of the more than 14,000 citizens who contribute their services annually to BLM are 55 years of age or older. (BLM's Volunteer and Hosted Worker Annual Report will be completed by the end of the year.) The following narratives exemplify the extraordinary gift of service BLM's senior volunteers contribute to America.

Mr. Bill McConogal is a retired computer programmer with 30 years experience with Honeywell and IBM. As a volunteer, Mr. McConogal designed a computer program in New Mexico that simplifies BLM's procurement tracking system, saving time and providing better accuracy.

On Saturday, May 20, 1989, Mr. Keith Dymock, who died last August, was commemorated in a special way by the Tooele (Utah) Wildlife Federation and the BLM. More than 50 officials, family and friends gathered in Rush Valley to witness the dedication of the Clover Reservoir Wildlife Habitat Area to the memory of Mr. Dymock. The Clover Reservoir Wildlife Habitat Area is a joint project between the Tooele Wildlife Federation, the Utah Division of Wildlife Resources, and BLM to create new waterfowl habitat. BLM would like to use this opportunity to recognize his valuable work and to again honor his memory. When he was alive, Mr. Dymock never sought recognition for his 40 years with the Tooele County Wildlife Federation where he donated thousands of hours to the 7,600-member organization and the causes it represents.

When Mr. Homer Culbertson retired from teaching, he had trouble finding his niche, until one evening during a BLM presentation at a Retired Teachers' Association meeting, he learned that the Chamber of Commerce needed weekend help at Barstow's Desert Information Center. That was 3 years and hundreds of hours ago. Mr. Culbertson works nearly every weekend and holiday at the information center where he answers questions, sells maps, brochures, and informational materials, and provides other visitor services as a Chamber of Commerce worker. Every Tuesday afternoon he performs the same duties as a BLM volunteer. "This is one of the most stimulating jobs I've ever had," he says. "I help 100 to 150 people a day from all over the world." More than 36,000 visitors stopped in the Desert Information Center last year. BLM volunteers currently donate 100 hours to the Desert Information Center each month, a figure likely to increase with the growing number of desert visitors.

Since 1974, Miss Ruth De Ette Simpson has been the project director of the Calico Early Man Site near Las Vegas when she took over the job from the late Dr. Louise Leakey, world renowned early man archaeologist/paleontologist. Since 1964, when a permit was issued to Dr. Leakey by the BLM, more than 11,000 stone tools have been discovered. The Calico excavations provide a unique "Museum in Place" of Pleistocence archaeology and geology, and BLM has designated the site an area of critical environmental concern. On November 1, Project Director Simpson and other "Friends of Calico Early Man Site" celebrated the silver anniversary of their continuous excavation and scientific research at the BLM site.

Last year, BLM awarded the "Volunteer for the Public Lands" national award to Mr. Frank Bagsby of Tulsa, OK. Mr. Bagsby has been working at BLM's Tulsa District Office weekly for the past 4 years. He researched, organized, barcoded, titled, carded, and catalogued materials to create an information system and library for the Tulsa District Office. This provides the resource professionals with a systematic research tool so they can accomplish their work in a shorter period of time.

Mr. Bagsby's volunteer job is an excellent example of how BLM tries to place a volunteer in a job position that uses the skills and interest that a volunteer has developed throughout a lifetime. As the letter to Mr. Bagsby from the Director of the BLM said, "On behalf of all of us, the Bureau thanks you for taking pride in America's Public Lands and their resources remain a treasured heritage for all our citizens."

Hosted Workers Also Serve.—"Hosted workers" do work that assists the BLM for which they are paid wages or salary from Government funds other than funds appropriated to BLM and are paid by some other entity other than BLM. They are not "volunteers," since volunteers are persons who contribute their services to BLM for no pay in wages or salary from any source. Following are brief narratives on two of BLM's hosted workers.

Mr. Bud Cantleberry of Lander, WY, works in the Lander Resource Area as a hosted worker from Green Thumb, Inc. Green Thumb, Inc., is a national public service employment and training program sponsored by the National Farmers Union under contract and grant with the U.S. Department of Labor, Employment and Training Administration. Mr. Cantleberry has assisted BLM by performing building maintenance, clean-up, mechanical repairs, work in the campground, sign installation, and fence repairs. (BLM serves as a "host" agency for national sponsors of the Senior Community Service Employment Program such as Green Thumb, Inc. and the American Association of Retired Persons (AARP). Both of these organizations recruit, place and pay senior citizens a small stipend to work with a Federal agency.)

As a hosted worker, Mr. Don Cisney has taken on the primary responsibility of surface compliance for the Kingman (Arizona) Resource Area. Mr. Cisney's duties include surface compliance of mining activities involving onsite meetings with operators to discuss problems and mitigating steps for existing problems. Mining claimants and operators have commonly reported their appreciation of the courteous and helpful manner in which Mr. Cisney has represented the BLM. His contributions have allowed other area specialists the time necessary to accomplish much more than they would otherwise have had time to do. Thanks in part to Mr. Cisney's work, the Kingman Resource Area reported an increase in progress in the area of exchanges; minerals compliance; and range, wildlife, and Wilderness Study Area monitoring. Mr. Cisney has been a valuable asset to the Kingman Resource Area and the BLM as a whole.

ITEM 9. DEPARTMENT OF JUSTICE

JANUARY 10, 1990.

DEAR MR. CHAIRMAN: I am pleased to enclose for you and the Members of the Special Committee on Aging the submission of the Department of Justice for *Developments in Aging.*

Within the Department, the Office of Justice Programs sponsors a number of initiatives that affect older Americans. For example, OJP collects information about the impact of crime on elderly victims and victimization rates of elderly citizens; works to improve the treatment of elderly and other victims of crime; and helps protect senior citizens and their neighborhoods through crime and drug abuse prevention and control programs. In addition, the Office of Justice Programs provides grant funds to the States that may be used to support State and local criminal justice programs for older Americans.

Through initiatives such as these, the Department of Justice is working to safeguard our Nation's senior citizens, who have given so much to this country, their communities, and their families. We trust that the programs we sponsor will play a meaningful role in ensuring for them the security from fear and crime and, of equal importance, the fair treatment they so richly deserve.

I appreciate having the opportunity to share with you and the Committee the significant accomplishments of the Department of Justice, through its Office of Justice Programs, on behalf of older Americans. Please do not hesitate to contact me if I may be of further assistance.

Sincerely,

CAROL T. CRAWFORD,
Assistant Attorney General.

Enclosure.

U.S. DEPARTMENT OF JUSTICE OFFICE OF JUSTICE PROGRAMS

The Office of Justice Programs (OJP), within the U.S. Department of Justice, sponsors a number of initiatives that affect older Americans. OJP was created in 1984 to coordinate the management and programs of five bureaus that work with State and local law enforcement and the criminal justice community. While each bureau or office retains independent authority in awarding funds for sponsored programs, the OJP components form a partnership whose goals are to control crime and drug abuse and trafficking, support cost-effective and innovative programs, promote information sharing, foster improvements in the Nation's criminal and juvenile justice systems, and improve the treatment of victims of crime.

Through its Bureau of Justice Assistance (BJA), OJP provides funds and technical assistance to State and local units of government to control crime and drug abuse and to improve the criminal justice system. Many of these programs have a positive impact on the lives and environments of older Americans.

Since 1985, BJA has provided formula grant funding to States to support a program to protect senior citizens from physical and mental abuse, prevent consumer fraud directed at them, promote community awareness and crime prevention among the elderly, and provide assistance for elderly victims of crime. To date, the program has been implemented in Arizona, Florida, Iowa, Kansas, North Dakota, Ohio, Oklahoma, and Rhode Island. Support for these programs is continuing through

BJA's Drug Control and System Improvement Program, as mandated by the Anti-Drug Abuse Act of 1988.

OJP also provides crime prevention and personal safety information to elderly citizens through the National Citizens' Crime Prevention Campaign. The Campaign features "McGruff, the Crime Dog," who asks Americans to help "Take A Bite Out of Crime" by taking simple precautions, by reporting suspicious activity to the police, and by working with their neighbors, community leaders, law enforcement officials, and others to keep their communities safe from crime and drugs.

The Campaign is administered through a partnership of OJP/BJA, the National Crime Prevention Council, the Crime Prevention Coalition, and the Advertising Council, Inc. Information packets developed by the Campaign and distributed across the country include special crime prevention tips for senior citizens and focus on the special needs, concerns, and vulnerabilities of elderly citizens with regard to crime and victimization. The Campaign also works to enlist senior citizens in the fight against crime and drugs. Its informational materials and public service advertising encourages older Americans to participate in crime prevention activities in their communities.

Under a BJA grant, the National Crime Prevention Council is developing *Topics in Crime Prevention*, which focuses exclusively on working with the elderly in crime prevention. The report will be distributed through the 130 member organizations of the Crime Prevention Coalition and to crime prevention practitioners throughout the country.

OJP's Bureau of Justice Statistics (BJS) collects, analyzes, publishes, and disseminates statistical information on crime, criminal offenders, victims of crime, and the operations of the criminal justice systems at all levels of government. No new analyses of data relating to the elderly were conducted during the year. However, previous studies have shown that while elderly citizens express a greater fear of crime than persons in other age groups, Older Americans are actually less likely to be victims of crime.

BJS's Reactions to Crime project found that impressions about crime are related to the content of information about crime. Such information tends to emphasize stories about elderly victims. These stories may influence older citizens to reduce their risk of victimization by constricting their activities to reduce their exposure to danger. This behavior would account, at least in part, for their high levels of fear and low levels of victimization.

OJP's Office for Victims of Crime (OVC) provides Federal financial assistance to states to compensate victims for medical and other expenses resulting from a crime and to provide counseling, referral and other services to crime victims. OVC funds also support services for victims of Federal crimes.

Although precise data is unavailable, OVC funds have supported a number of programs that specifically serve elderly victims of crime. In addition, a 1988 amendment to the Victims of Crime Act (VOCA) of 1984 requires States to set aside 10 percent of Federal victim assistance funds for previously underserved victim populations, as determined by each State. Eight States identified elderly crime victims as a previously underserved group for which they plan to fund programs and services: Alabama, Delaware, Georgia, Kentucky, New York, North Dakota, Oklahoma, and Rhode Island. Alabama and Rhode Island committed the full 10 percent ($72,900 and $29,000 respectively) exclusively to serve elderly crime victims.

OVC revised its reporting forms during the year so that, in fiscal year 1989 and beyond, data will be available on dollars allocated to elderly victims and the number of elderly crime victims receiving services in each State.

Elderly victims of Federal crimes are provided services through the Victim/Witness Coordinators in the 94 U.S. Attorney's Offices throughout the country. Services include, but are not limited to, the following: Notification and information about the case, orientation to the criminal justice system and assistance in participating in the trial, information and referral services regarding community resources and social services, protection from harassment or intimidation, and assistance in obtaining court-ordered restitution for injuries.

In addition, through an interagency agreement with OVC, the Federal Law Enforcement Training Center provides training to Federal law enforcement officers on how to effectively assist elderly victims of crime.

OVC funds also support 29 new victim assistance programs on Indian reservations. The programs provide services such as counseling and emergency shelter to elderly victims of crime.

Additional information about the Office of Justice Programs is available from the: Office of Congressional and Public Affairs, Office of Justice Programs, 633 Indiana Avenue, N.W., Washington, D.C. 20531, Telephone: (202) 724-7782.

ITEM 10. DEPARTMENT OF LABOR

JANUARY 10, 1990.

DEAR MR. CHAIRMAN: Enclosed is a summary of the programs and activities of the Department of Labor for fiscal year 1989 related to aging.

Described in the report are programs administered by the Employment and Training Administration, the Pension and Welfare Benefits Administration, and the Bureau of Labor Statistics.

I trust this information will be of assistance to you in preparing your report, Developments in Aging.

Sincerely,

ELIZABETH DOLE.

Enclosure.

BUREAU OF LABOR STATISTICS

INTRODUCTION

The Department of Labor's Bureau of Labor Statistics (BLS) regularly issues a wide variety of statistics on the employment situation by age. Monthly data are available on employment and unemployment for older persons, and annual data are available on consumer expenditures for this group.

EMPLOYMENT PROBLEMS OF OLDER WORKERS

At the request of Congress, BLS prepared a report on the employment problems of older workers. This report was submitted to Congress in January 1989.

The report examined a wide range of data on such problems as employment, displacement and discouragement. It also reviewed some special labor market problems of older women, particularly those associated with labor market reentry. In addition, the report looked at some possible barriers to older worker employment, including pension regulations and the availability of appropriate part-time jobs.

EMPLOYMENT AND TRAINING ADMINISTRATION

INTRODUCTION

The Department of Labor (DOL) Employment and Training Administration (ETA) provided a variety of training, employment and related services for the Nation's older individuals during Program Year 1988 (July 1, 1988–June 30, 1989) through the following programs and activities: the Senior Community Service Employment Program (SCSEP) authorized under Title V of the Older Americans Act; programs authorized under the Job Training Partnership Act (JTPA); the Federal-State Employment Service system; and research and demonstration efforts.

SENIOR COMMUNITY SERVICE EMPLOYMENT PROGRAM

The Senior Community Service Employment Program (SCSEP), authorized by Title V of the Older Americans Act, employs low-income persons age 55 or older in a wide variety of part-time community service activities such as health care, nutrition, home repair, and weatherization programs, and in beautification, fire prevention, conservation, and restoration efforts. Program participants work an average of 20 hours per week in schools, hospitals, parks, community centers, and in other government and private nonprofit facilities. Participants also receive personal and job-related counseling, annual physical examinations, job training, and in many cases referral to unsubsidized jobs in the competitive labor market.

Eighty percent of the participants are age 60 or older, and over half are age 65 or older. Seventy percent are female, about half have not completed high school, and all enrollees are at or below 125 percent of the establishes poverty level.

Table 1 below shows SCSEP funding, enrollment and participant characteristics for the program year July 1, 1988, to June 30, 1989.

TABLE 1.—*Senior Community Service Employment Program (SCSEP): Funding, enrollment, and participant characteristics—Program year July 1, 1988, to June 30, 1989*

Funding	$331,260,000
Enrollment:	
Authorized positions established	64,426
Unsubsidized placements	15,487

Characteristics (percent):	
Sex:	
Male	30
Female	70
Educational status:	
8th grade and less	28
9th through 11th grade	21
High School graduate or equivalent	34
1-3 years of college	12
4 years of college or more	5
Veterans	14
Ethnic groups:	
White	63
Black	23
Hispanic	9
American Indian/Alaskan Native	2
Asian/Pacific Island	3
Economically disadvantaged	100
Poverty level or less	80
Age groups:	
55-59	19
60-64	27
65-69	26
70-74	16
75 and over	12

Source: U.S. Department of Labor, Employment and Training Administration (Preliminary Data).

JOB TRAINING PARTNERSHIP ACT (JTPA) PROGRAMS

The Job Training Partnership Act (JTPA) provides job training and related assistance to economically disadvantaged individuals, dislocated workers, and others who face significant employment barriers. The ultimate goal of JTPA is to move program participants into permanent, self sustaining employment. Under JTPA, Governors have approval authority over locally developed plans and are responsible for monitoring local program compliance with the Act. JTPA functions through a public/private partnership which plans and designs training programs, and also delivers training and other services. Private Industry Councils, in partnership with local governments in each service delivery area, are responsible for providing guidance for and oversight of job training activities in the area.

JTPA places emphasis on increasing the post program employment and earnings of economically disadvantaged and displaced workers. Seventy percent of the funds available to service delivery areas are required to be spent on training. Not more than 15 percent can be spent for the costs of administration, and not more than 30 percent may be spent for the combined costs of administration and supportive services.

Basic JTPA Grants

Title II-A authorizes a wide range of training activities to prepare economically disadvantaged youth and adults for employment. Training services available to eligible older workers through the basic Title II-A grant program may include activities such as on-the-job training, institutional and classroom training, remedial education and basic skills training, and job search assistance and counseling. Table 2 shows the number of persons 55 years of age and over who terminated from the Title II-A program during the period July 1, 1988, through June 30, 1989. The data do not include the 3 percent set-aside program which is reviewed separately.

TABLE 2.—JTPA ENROLLMENT JULY 1, 1988-JUNE 30, 1989

[Title II-A grants]

Item	Number served	Percent
Total terminees	733,410	100
55 years and over	13,202	1.8

Source: U.S. Department of Labor, Employment and Training Administration (October 1989 Preliminary Data).

Programs for Dislocated Workers

Title III of JTPA authorizes a State-administered dislocated worker program which provides training and related employment assistance to workers who have been, or have received notice that they are about to be, laid off due to a permanent closing of a plant or facility; laid off workers who are unlikely to be able to return to their previous industry or occupation; and the long-term unemployed with little prospect for local employment or reemployment. Those older workers eligible for the program may receive such services as job search assistance, retraining, prelayoff assistance and relocation. During the period July 1, 1988 through June 30, 1989 approximately 10,200 individuals 55 years of age and over went through the program (7.6 percent of the program terminations).

Section 124 Set-Aside

Section 124 of JTPA call for 3 percent of the Title II-A allotment of each State to be made available for the training and placement of older individuals is employment opportunities with private business concerns. The provision specifies that only economically disadvantaged individuals who are 55 years of age or older are eligible for services funded from this set-aside.

JTPA offers wide discretion to the Governors in using the set-aside. Two major patterns have evolved. One is its use for organizationally distinct older worker projects in a manner similar to the categorical separation of SCSEP programs from the rest of the JTPA system. The other is the use of the set-aside as resources for Title II-A programs to ensure a minimum portion of older workers among the Title II-A participants, without the creation of separate programs for older workers. In some States, all or part of the set-aside is formula-funded to service delivery areas. In other States, it is used for administration at the State level, for model programs, or for both purposes. For Program Year 1988, (July 1, 1988 through June 30, 1989), the 3 percent set-aside program for economically disadvantaged individuals 55 years of age and over enrolled over 48,000 participants.

THE FEDERAL-STATE EMPLOYMENT SERVICE SYSTEM

The State-operated public employment service offices offer employment assistance to all jobseekers, including middle-aged and older persons. A full range of basic labor exchange services are provided, including counseling, testing, job development, job search assistance and job placement. In addition, labor market information and referral to relevant training and employment programs are also made available.

In response to the paperwork reduction initiatives, Federal reporting requirements for the State Employment Service (ES) agencies no longer include data on the characteristics of applicants. Therefore, information is not available at the national level on the number of middle-aged and older persons served by the ES.

RESEARCH

In Fiscal Year 1989, the National Institute for Work and Learning prepared a summary report on the needs and characteristics of union retirees and the services available to them from community resources and from their unions. The report, which was funded by the Employment and Training Administration and the AFL-CIO, will make the results of a two year study of over 10,000 retirees available to an audience of unions and others interested in the needs of and resources available to older workers and retirees. The findings include information on the retirees' housing, health services, finances, pre- and post-retirement employment, social contacts, general needs and concern, and satisfaction with conditions before and after retirement. The roles of the unions and community organizations in satisfying the needs of retirees were examined in a general survey and in detailed studies of representative communities. The summary [1] and a two-volume set [2] containing the detailed research findings will be available in January 1990.

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[1] Union Retirees: Enriching Their Lives—Enhancing Their Contribution—Summary Report. National Institute for Work and Learning, January 1990.

[2] Union Retirees: Enriching Their Lives—Enhancing Their Contribution—Volumes I and II. National Institute for Work and Learning, January 1990.

PENSION AND WELFARE BENEFITS ADMINISTRATION

INTRODUCTION

The Pension and Welfare Benefits Administration (PWBA) is responsible for enforcing the Employee Retirement Income Security Act (ERISA). PWBA's primary responsibilities are for the reporting, disclosure and fiduciary provisions of the law.

Employee benefit plans maintained by employers and/or unions generally must meet certain standards, set forth in ERISA, designed to ensure that employees actually will receive the benefits promised. ERISA does not, however, apply to public sector plans or to certain private sector plans.

The requirements of ERISA differ depending on whether the benefit plan is a pension plan or a welfare plan. Both types of plans must comply with provisions governing reporting and disclosure to the Government and to participants (Title I, Part 1) and fiduciary responsibility (Title I, Part 4). Pension plans must comply with additional ERISA standards (contained in both Title I, Parts 2 and 3, and Title II) which govern membership in a plan (participation), nonforfeitability of a participant's right to a benefit (vesting), and financing of benefits offered under the plan (funding). Welfare plans providing medical care must comply with ERISA continuation covergae requirements (Title I, Part 6).

The Departments of Labor and the Treasury have responsibility for administering the provisions of Title I and Title II, respectively, of ERISA. The Pension Benefit Guaranty Corporation (PBGC) is responsible for administering Title IV, which established an insurance program for certain benefits provided by specified ERISA pension plans.

REPORTING AND DISCLOSURE STANDARD

ERISA requires that plans disclose to participants and report to the Federal Government information about plan provisions and financial status. Certain plans must submit an annual report in the form of a financial statement; in general, PWBA-regulated benefit plans must also submit a public accountant's opinion. The report generally includes a statement of plan assets and liabilities, a statement of transactions involving conflict of interest situations, and other information regarding the administration of the plan. Annual report forms are simplified for small plans, and a number of paperwork reductions have been instituted since ERISA's passage in 1974.

The annual report is submitted to the Internal Revenue Service (IRS) and shared by the ERISA agencies. In fiscal year 1989, data indicate that DOL received over 1 million annual reports. This information is used for enforcement and research, and the documents are kept on file for public disclosure. The plan administrator also provides participants, beneficiaries and DOL with a summary plan description (SPD) written to be understood by the average person. The SPD contains a description of benefits, the requirements for eligibility and procedures for presenting claims for benefits. In addition, participants may request, and in some cases must be provided without a request, a statement of their individual benefits.

The Pension Protection Act of 1987 amended ERISA to authorize the Labor Department to assess civil penalties of up to $1,000 per day against plan administrators who refuse or fail to file complete annual reports.

MINIMUM STANDARDS FOR PARTICIPATION AND VESTING

IRS, for the most part, enforces the ERISA minimum standards for participation and vesting. ERISA restricts the age and service requirements which plans may impose as conditions for eligibility to participate in the employer's pension plan. The basic rule is that an employee cannot be denied membership in the plan, merely on account of age or service, if he or she is at least 21 years old and has worked for the employer for 1 year.

Other ERISA provisions govern when a plan participant must gain a nonforefeitable right to the portion of the retirement benefit provided by the employer's contributions to the plan. (Amounts attributable to the participant's own contributions are always nonforfeitable). In this regard, the plan must provide that an employee gain a nonforfeitable right to this portion of his or her retirement benefit at a rate which is not less generous than one of the schedules set forth in ERISA. The Tax Reform Act of 1986 established new schedules which, for most plans, provide a nonforfeitable right to retirement benefit sooner than under prior law. The new schedules are effective for plan years beginning after 1988.

ERISA also contains rules on the rate at which participants must be allowed to "accure" a benefit, i.e., the rate at which they are considered to have "earned" a portion of their ultimate retirement benefit. These standards basically are relevant to pension plans which promise to provide participants a defined periodic payment upon retirement.

MINIMUM FUNDING STANDARDS

ERISA sets forth rules for financing pension benefits. For plans which promise participants a defined periodic payment upon retirement, the employer's contribution are determined actuarially. Certain assumptions or mortality, interest, and turnover rates are used to calculate how much should be contributed to provide the benefits promised by the plan. ERISA provides rules governing what types of funding methods are appropriate and establishes penalties for failures to comply with these standards. These funding rules are enforced by IRS. The Department of Labor, however, has jurisdiction over two new disclosure requirements related to the minimum funding standards under the Pension Protection Act of 1987.

FIDUCIARY STANDARDS

ERISA sets forth certain standards regarding the investment and utilization of plan assets with which fiduciaries of employee benefit plans must comply. These standards include the requirements that plan assets be invested "solely in the interest" of plan participants and beneficiaries, and that plans be maintained for the exclusive benefit of the participants and their beneficiaries. ERISA provides that fiduciaries must adhere to standards regarding the safeguarding and diversification of plan assets that would be followed by a "prudent" investor. ERISA also sets forth certain activities that (unless specifically exempted) may not be carried out be certain individuals and groups (including fiduciaries) who, because of the potential for conflict with the interests of the plan, might cause the plan to operate in their own interests. These activities are known as "prohibited transactions," and persons who violate the rules may be subject to an excise tax imposed by IRS, or a civil penalty assessed by the Department of Labor.

Civil actions may be brought by the Secretary of Labor or by plan participants and beneficiaries for violations of Title I of ERISA. DOL places great emphasis on enforcing the fiduciary provisions of the Act. In fiscal year 1989, it recovered over $111 million for employee benefit plans through a combination of litigation and voluntary compliance. Under voluntary compliance breaches of fiduciary duty are corrected through voluntary settlement agreements with plan officials. Potential criminal violations involving employee benefit plans investigated by PWBA may be referred to the Department of Justice for prosecution. The Omnibus Budget Reconciliation Act of 1989 created new mandatory civil penalties that apply to recoveries for violations of ERISA by plan fiduciaries.

PLAN TERMINATION INSURANCE

Title IV of ERISA established within DOL a benefit insurance program administered by PBGC, an independent nonprofit entity with a Board of Directors consisting of the Secretaries of Labor, Commence, and the Treasury. This insurance program is applicable only to certain pension plans which promise a defined benefit upon a participant's retirement. Employers who maintain these plans are required to pay an annual per-participant premium to PBGC to finance this coverage.

The guarantee program differs according to the number of employers maintaining the plan. In the case of a single-employer plan, PBGC will guarantee, up to prescribed level, the payment of a participant's nonforfeitable benefit if the plan terminates with insufficient assets to pay these benefits. In the case of a multiemployer plan, PBGC guarantees benefits up to a prescribed level which is lower than the level guaranteed to single-employer plans. In this case, it is the inability of the plan to pay participants their guaranteed amounts, not plan termination, that triggers financial assistance.

RESEARCH AND DEVELOPMENT

PWBA conducts a coordinated program of research through contracts and in house studies. The research program develops data on employee benefit plans which can be used as the basis for program modifications or policy decisions. It also analyzes economic issues related to retirement decisions and income and to the performance and effect of private pension plans in financial markets. The following study areas were reviewed in fiscal year 1989:

(1) The changes in retiree's pension benefits over the period of retirement.

(2) Pension plan terminations of companies involved in mergers and acquisitions; changes in pension generosity as a result of takeovers.

(3) The effect of the Pension Protection Act on plan funding.

(4) Analysis of sampling issues and projection techniques for the Form 5500 data; 1986 Form 5500 sample.

(5) A supplement to the Current Population Survey on employer-provided pension benefits.

(6) The financial factors affecting firm's decisions to grant benefit increases to retirees.

(7) The role of innovative investment vehicles in pension portfolio strategies.

(8) Development of a microsimulation model for analysis of proposed health insurance legislation.

(9) Characteristics of the working uninsured.

(10) Study of private employers' health care cost containment.

(11) Increased in demand for health services by newly insured workers.

(12) Analysis of the income distribution effects of mandated health benefits.

Further, a book, *Trends in Pensions 1989,* which compiles for the first time more than 16,000 statistics about the U.S. pension system from more than 50 publications, was published.

INQUIRIES

PWBA publishes literature and audio-visual materials which explain in some depth provisions of ERISA, procedures for plans to ensure compliance with the Act, and the rights and protections afforded participants and beneficiaries under the law. In addition, PWBA deals with many inquiries from older workers. During fiscal year 1989, the national office staff responded to over 63,600 plan participants, beneficiaries, and other persons interested in the administration of plans. Among the publications disseminated, the following are designed exclusively to assist the public in understanding the law and how their pension plans operate:

—*What You Should Know About the Pension And Welfare Law.*
—*Know Your Pension Plan.*
—*How To File A Claim For Benefits.*
—*Often Asked Questions About ERISA.*
—*Retirement Equity Act: Its Impact On Women.*
—*How to Obtain Employee Benefit Documents From the Labor Department.*
—*Simplified Employee Pensions: What Small Business Needs To Know.*

ITEM 11. DEPARTMENT OF STATE

OCTOBER 30, 1989.

DEAR MR. CHAIRMAN: I am responding on behalf of the Secretary of State to your letter of October 11, concerning the Developments in Aging report. Enclosed is the Department's submission for Volume II of the report. Thank you for providing the opportunity to discuss this important topic.

Sincerely,

JANET G. MULLINS,
Assistant Secretary Legislative Affairs.

Enclosure: Report on Developments in Aging.

DEPARTMENT OF STATE REPORT ON DEVELOPMENTS IN AGING FOR 1989

The Department of State primary involvement with aging citizens is as a provider of U.S. Government services to Amerians living overseas. In this capacity, American embassies assist in the distribution of Social Security benefits to recipients living overseas, for example.

The Department's second point of interaction with the aging is in the context of providing retirement benefits for retirees. The Department of State administers the Foreign Service Retirement and Disability System and the Foreign Service Pension System, which provide annuities and survivor benefits to retired members of the Foreign Service, and their families.

The Department also engages with its former employees by sponsoring Foreign Service Day on an annual basis. This one day conference, held on the Department of State premises, affords Foreign Service retirees an opportunity to refresh their knowledge of foreign affairs, through a series of meetings and speakers on foreign policy topices of the day. Foreign Service Day additionally gives our former employees a chance to maintain and revitalize personal contacts and friendships acquired during their careers.

ITEM 12. DEPARTMENT OF TRANSPORTATION

DECEMBER 20, 1989.

DEAR SENATOR PRYOR: I am pleased to forward to you the enclosed report which summarizes significant actions taken by this Department during 1989 to improve transportation facilities and services for older Americans. The report is being forwarded in response to your letter to Secretary Skinner, requesting information for Part 2 of the Committee's annual report, *Developments in Aging*. I hope you will find this information helpful.

If we can assist you further, please let us know.

Sincerely,

JEFFREY N. SHANE,
Assistant Secretary for Policy
and International Affairs.

Enclosure.

SUMMARY OF ACTIVITIES TO IMPROVE TRANSPORTATION SERVICES FOR THE ELDERLY [1]

INTRODUCTION

The following is a summary of significant actions taken by the U.S. Department of Transportation during calendar year 1989 to improve transportation for elderly persons.[2]

POLICIES

Federal Railroad Administration (FRA)

The National Railroad Passenger Corporation (Amtrak) continued throughout calendar year 1989 its systemwide policy of offering to handicapped and elderly persons a 25 percent discount on one-way ticket purchases, with the exeption of certain peak travel days. Senior citizens and handicapped passengers are not permitted to combine their 25 percent discount with any other discounts.

With appropriate prior notification to its reservation office, Amtrak provides special food service, facilities for handling reservations for the hearing impaired, special equipment handling, and provision of wheelchairs and assistance in boarding and deboarding of elderly and handicapped passengers. Amtrak operates a Special Services Bureau 7 days a week that assists special needs passengers with tickets and transportation. Persons may request speical services by contacting Amtrak's special service desk at 1-800-USA-RAIL. They may also inform the ticket agent of their need at the time they book their reservations or call the railroad station in advance of their travel.

More than 120,000 mobility-impaired and other disabled individuals sought assistance from the Special Services Bureau last year and tens of thousands of other disabled and elderly persons traveled on Ambrak unassisted. Over the past several years, 48 percent of long-distance passengers were 55 and older, and 28 percent were 65 and older. In addition, Amtrak works each year with a number of organizations on large special moves of disabled and elderly tour group passengers.

Amtrak has modified its older coaches and sleeping cars and has incorporated accessibility features in restrooms and in other areas. Virtually every car can accommodate one electric wheelchair, and Amtrak offers handicapped sleeping accommodations on all overnight trains. The corporation is replacing its battery-opreated lifts with mechanical lifts, which are easier to operate and present fewer maintenance problems. It is continuing to incorporate accessibility features in its more than 475 stations as they are upgraded.

Amtrak is working to improve training of its employees so that they are familiar with the appropriate ways to respond to passengers with special needs.

Urban Mass Transportation Administration (UMTA)

UMTA is the lead agency in an interdepartmental working relationship between the Department of Transportation (DOT) and the Department of Health and Human Services (DHHS). Under the terms of the interagency agreement, a staff working group has been established, and a formal executive level DOT/DHHS Transportation Coordination Council has been formed. The Council which meets biannually, has directed that regional initiatives be undertaken in each Federal region. Federal regional staff from both Departments have worked with State program administrators to identify barriers to coordination in federally supported programs and to encourage state and local efforts to coordinate funding for specialized transportation services. The liaison between these two Departments will increase the mobility of elderly Americans by improving the coordination and effective use of transportation resources of both Departments.

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[1] Prepared for the U.S. Senate Special Committee on Aging—December 1989.

[2] Many of the activities highlighted in this report are directed toward the needs of handicapped persons. However, one-third of the elderly are handicapped and thus will be major beneficiaries of these activities.

As a part of its efforts in the Joint Council on Coordination, UMTA and the Department of Health and Human Services developed a "Manual of Best Practices" in transportation coordination. This manual covers state and local programs which address a number of the barriers to coordination identified by the regional initiatives.

UMTA is working closely with the Administration on Aging (AOA) to develop joint initiatives to ensure closer working relationships between state transportation agencies and agencies on aging. As a part of this effort, UMTA and AOA jointly funded workshops in Texas and Ohio aimed at developing better coordination of policies and programs at the State level. The workshops identified a number of barriers in these States and developed action plans to deal with them.

UMTA and DHHS continued to work with the Federal Region IV Transportation Consortium. The consortium is an eight State cooperative effort in Region IV designed to achieve improvements in human service transportation delivery. Project components include: Development of a coordinated technical assistance mechanism among the member States; research; and identification and removal of programmatic and institution barriers to coordinated human service transportation funded by the two Departments. Particular attention is given to transportation and human service programs administered at the State level.

CAPITAL AND OPERATING ASSISTANCE

Urban Mass Transportation Administration

Under Section 16(b)(2) of the Urban Mass Transportation Act, UMTA provides assistance to private nonprofit organizations for the provision of transportation services for elderly persons and persons with disabilities. In 1989 over $34.8 million was used to assist in the purchase of 1,357 vehicles for the provision of transportation services for these persons.

Under Section 18 of the Urban Mass Transportation Act, UMTA obligated $84.2 million to States in 1989. These funds were to be used for capital, operating, and administrative expenditures by State and local agencies, nonprofit organizations and operators of transportation systems to provide public transportation services in rural and small urban areas under 50,000 population. Under Section 9 of the Urban Mass Transportation Act, UMTA obligated $1,712.7 million in 1989. These funds were to be used for capital and operating expenditures by transit agencies to provide public transportation services in urbanized areas. While these services must be open to the general public, a significant number of passengers served are elderly persons.

RESEARCH AND TECHNICAL ASSISTANCE

Urban Mass Transportation Administration

The Rural Transit Assistance Program (RTAP), in its third year, was authorized to expend $5 million in FY 1989. The program provides funding for training, technical assistance and research, and related support activities in rural areas. States receive 85 percent of the funding, while the remaining 15 percent is allocated to the RTAP National Program. The RTAP National Program supports among other initiatives, a National RTAP Resource Center and toll free hotline, peer-to-peer networking activity, the RTAP Bulletin, regional outreach initiatives and a 15-member Review Board which provides oversight of the training modules. The RTAP Program produces a wide range of initiatives for able bodied, disabled, and elderly and handicapped rural transit patrons.

The National Easter Seal Society Project Action (Accessible Community Transportation in our Nation) is a $3 million research and demonstration grant program now in the final implementation phase. National and local organizations representing public transit operators, the transit industry, and persons with disabilities are involved with the development and demonstration of workable approaches to promote access to public transportation services for people with disabilities. Project Action has identified five priority areas:

1. Clarify disability problems in the community;
outreach and marketing strategies for people with disabilities;
3. training programs for transit providers;
4. training programs for persons with disabilities; and
5. technology to solve critical barriers to transportation and accessibility.

Project Action will also assist in the implementation of the Americans with Disabilities Act by investigating what training is necessary to sensitize transit drivers to the needs of people with various disabilities. Tie down and securement difficulties, especially for the three wheeled motorized wheelchairs have been identified for research. Project Action has also identified the "Red Mitt" program instituted by the Southeastern Michigan Area Rapid Transit District (SMART) which allows persons with disabilities to get on a bus by merely holding up their hand with a red mitt. It does not matter whether the transit rider is at a bus stop or not. Now people can wait at the end of a driveway and can be picked up by a SMART bus. This program along with other model projects will be targeted by Project Action to be refined and replicated throughout the country.

Federal Highway Administration (FHWA)

Following publication in October 1988 of the Transportation Research Board's (TRB) special on *Transportation in an Aging Society*, the Federal Highway Administration (FHWA) developed an "Action Plan for Older Persons." The plan supports the findings and recommendations of the TRB report, but goes beyond them to include all the highway needs of older drivers and pedestrians. It discusses current FHWA activities and outlines additional data and research needed for better accommodation of elderly drivers and pedestrians on our highway system. It is a comprehensive plan for future activities and research that the FHWA will undertake.

An FHWA project produced a handbook compiling information on planning, design, and maintenance of pedestrian facilities. The handbook covers design features required to accommodate elderly and handicapped pedestrians.

Traffic Control Design Elements for Accommodating Drivers With Diminished Capability is the title of a study to determine if drivers with diminished capability are being adequately accommodated by the current generation of traffic control devices, and whether the special needs of these motorists are being met by traffic control design criteria. It is expected that recommendations for meeting these needs will be developed. The project is scheduled to be completed in the winter of 1990.

Recently, FHWA initiated a study entitled *Traffic Maneuver Problems of Drivers With Diminished Capacity*. The study will be part of a national research program area on "Improved Highway Travel for an Aging Population." It will be a major contribution to the objective of identifying, developing, and evaluating engineering enhancements to the highway system to meet the needs of older users. This study will identify driving maneuvers that are most affected by the diminished capacity of advanced age. With this data in hand, it will be possible to determine the effects on traffic operations and highway safety so counter-measures can be suggested.

Section 208(d) of the Surface Transportation and Uniform Relocation Assistance Act of 1987 authorized a pilot program of highway safety improvements to enhance the safety and mobility of older drivers. Arizona, Florida, and Nevada are implementing pilot projects in response to FHWA's encouragement of such projects. The FHWA, in its April 1990 report to Congress, will include findings from the participating State pilot projects, as well as any information gathered from other States addressing older driver problems.

During fiscal year 1989, the FHWA also developed a research project that will determine the perception-reaction time of older drivers. The results will be of possible use in sight-distance equations for design of intersections and vertical and horizontal curves. The contract will begin early in fiscal year 1990.

National Highway Traffic Safety Administration (NHTSA)

The year 1989 marked the beginning of a long-term research program by the agency aimed at improving the safety of older persons on our Nation's streets and highways. The agency, in cooperation with the National Institute on Aging, the Centers for Disease Control, and the Federal Highway Administration, sponsored a 2-day workshop to identify the basic and applied research needed to increase the safety and mobility of older drivers. The findings and recommendations stemming from this workshop will form the basis for the development of a cooperative interagency research plan on this subject.

Several specific studies were also initiated in 1989. An interagency agreement was signed with the National Institute on Aging to obtain highway safety-related information from participants in two ongoing epidemiological studies of elderly populations. The purpose of this effort is to determine how driving and pedestrian practices are influenced by medical conditions and functional capabilities and how these factors relate to crash risks. An associated study with the University of Washington is focused on the same objectives. Finally, a project to develop pedestrian safety materials and design a nationwide safety campaign to safeguard elderly pedestrians is underway. Results from this project are expected to be available in the summer of 1990.

INFORMATION DISSEMINATION

Federal Railroad Administration

To inform older and handicapped Americans about special services, brochures entitled "Access Amtrak" and the "Amtrak Travel Guide" are made available through the Railroad's Public Affairs Office. The Amtrak Travel Guide, which identifies accessible stations, is also made available through local sales offices and travel agents.

National Highway Traffic Safety Administration

During 1989, agency staff prepared two reports pertaining to the older driver. The first one, titled *"Licensing the Older Driver: A Summary of State Practices and Procedures"*, was disseminated to a wide audience of State and Federal officials, researchers, and organizations interested in the welfare of older persons. It describes State licensing practices that affect older drivers and discusses innovative licensing programs underway in Washington, Oregon, and Pennsylvania.

The second report, titled *"The Effects of Aging on the Cognitive and Psychomotor Abilities of Older Drivers: A Review of the Research"*, will be available for dissemination in the early part of 1990. This report summarizes research from the psychological, highway safety gerontological, and medical literature with respect to the nonpathological effects of aging on perception, cognition and reaction time related to driving.

ITEM 13. DEPARTMENT OF THE TREASURY

DECEMBER 22, 1989.

DEAR CHAIRMAN: I am pleased to submit, for inclusion in Developments in Aging, the Treasury's report on the Department's activities during 1989 which affected the aged. I hope our report will be of use to the Special Committee on Aging and others studying the problems faced by older Americans.

Sincerely,

BRYCE L. HARLOW,
Assistant Secretary
(Legislative Affairs).

Enclosures.

TREASURY ACTIVITIES IN FISCAL YEAR 1989 AFFECTING THE AGED

The Treasury Department recognizes the importance and the special concerns of older Americans, a group that will comprise an increasing proportion of the population in decades ahead.

The Secretary of the Treasury is Managing Trustee of the Social Security trust funds. The short- and long-run financial status of these trust funds is presented in annual reports issued by the Trustees. The 1989 reports concluded that Old-Age and Survivors Insurance and Disability Insurance benefits can be paid on time well into the next century. As reflected in the past several reports, the financial outlook for Medicare, in particular Hospital Insurance (or Part A), may become troublesome later in the next decade. In this event some Congressional action may be needed in the next several years.

Federal individual income taxes for 1989 reflected a larger personal exemption mandated by statute, and the adjustment for inflation of standard deductions and the width of individual income tax brackets.

The personal exemption for each taxpayer increased from $1,950 for 1988 to $2,000 for 1989. As the result of indexing to reflect the effects of previous inflation, the width of tax brackets increased by approximately 4.1 percent between 1988 and 1989.

Taxpayers age 65 or over (and taxpayers who are blind) are entitled to a larger standard deduction than other taxpayers. For 1989, each taxpayer who is at least 65 years old and single is entitled to an extra $750 standard deduction. Each married taxpayer over 65 is entitled to an extra $600 standard deduction so that a married couple, both over age 65, is entitled to an extra $1,200. Including the extra standard deduction amounts cited above and the basic standard deduction amounts which were adjusted for the effects of inflation, taxpayers over age 65 were entitled to the following standard deductions for tax year 1989: $3,850 for a "single" taxpayer; $5,300 for a taxpayer entitled to claim "unmarried head of household" status; $5,800 for a married couple filing a joint tax return, if only one is over age 65; and $6,400 for a married couple filing jointly if both are over age 65.

Two other special tax provisions for the elderly were retained for 1989: the tax credit for the elderly (and permanently disabled); and the one-time exclusion of the first $125,000 of profit from the sale of the personal residence of a taxpayer over age 55.

Under legislation enacted in 1988, Medicare benefits were to be expanded significantly, primarily ro provide coverage for catastrophic medical expenses, and beginning in 1989, monthly Medicare premiums were to increase and a new supplemental Medicare premium was to be imposed. The supplemental premium was to be based on the recipient's Federal income tax liability and was to be collected through the Federal income tax system. The Department of the Treasury developed the tax forms and instructions for collecting the supplemental premium, distributed such information to the public, and included the new instructions and tax forms in the income tax packages prepared for mailing to all taxpayers. Near the close of 1989, legislation repealed most of the expansion of catastrophic benefits as well as the supplemental Medicare premium for 1989 and future years. The increase in the basic Medicare premium was retained for 1989 but repealed thereafter.

INTERNAL REVENUE SERVICE ACTIVITIES AFFECTING THE AGED

The Internal Revenue Service (IRS) recognizes the importance and the special concerns of older Americans, a group that will comprise an increasing proportion of the population in the decades ahead. IRS also continues to make special efforts to inform those individuals who, because of immobility, impaired health, or other factors, may miss out on benefits to which they are entitled. The major programs in this effort are described below.

—The focus of the *Tax Counseling for the Elderly (TCE) Program* is free, convenient, tax assistance to persons age 60 and older. The IRS enters into cooperative agreements with public and private nonprofit organizations (sponsors) whose members will be IRS-trained and then act as volunteer tax assistors. Although the service is free under the cooperative agreements, volunteers are reimbursed for their out-of-pocket expenses incurred while traveling to community assistance sites or residences for the elderly. In fiscal year 1986, the TCE Program was expanded to include telephone service. Sponsors were given the option to operate telephone answering sites to assist the elderly with tax questions, help with forms, or schedule appointments. IRS assistance to older Americans through the TCE program has been growing since the program's inception in 1980. Nearly 28,000 volunteers helped 1.3 million persons during fiscal year 1989.

—*Volunteer Income Tax Assistance (VITA) Program* provides tax assistance to targeted groups including the elderly. The IRS trains volunteers who offer their services to taxpayers needing assistance. This service is free and many VITA volunteers also help the elderly in preparing their state and local returns and answering their questions. In addition, volunteers helped elderly taxpayers to compute their estimated tax for the upcoming tax filing season. In 1989, volunteers were trained to assist the elderly in computing the Supplemental Medicare Premium. During fiscal year 1989, some 49,000 volunteers helped more than 1.3 million taxpayers. The IRS is studying whether volunteers' training can be enhanced.

—*The Small Business Workshop Program* provides information about business taxes and the responsibilities of operating a small business. Through a unique partnership between IRS and over 1,100 community colleges, universities, and business associations across the country, small business associations across the country, small business owners and other self-employed persons have an opportunity to learn what they need to know about business taxes. Because assistance is offered at convenient community locations and suitable times, the elderly can avail themselves of this Service, and do, when beginning second careers.

In fiscal year 1989, some 62,000 small business taxpayers attended nearly 1,400 Program workshops.

—As part of the *Bank, Post Office, and Library Program (BPOL)*, the IRS supplies 14,600 libraries nationwide with free tax aids such as reproducible tax forms, reference publications, and audiovisual materials that can assist the aged in preparing Forms 1040, 1040A, 1040EZ and related schedules. Also, banks and post offices distribute the Form 1040 family and related schedules.

—*The Community Outreach Tax Education Program* provides individuals with group income tax return preparation assistance and tax education seminars. IRS employees and trained volunteers conduct these seminars, which address a variety of topics, for groups and individuals with common tax interests, such as the aged. These seminars are conducted at community locations. Nearly 1 million people attended almost 9,000 Outreach sessions and seminars in fiscal year 1989.

The Internal Revenue Service issues a large number of taxpayer information materials for dissemination to the media for the public through field offices and national media. These materials which contain specific information for the elderly include IRS publications, taxpayer information materials, drop-in public service advertisements, and tax supplements as described below:

—Publication 910, "Guide to Free Tax Services," describes the free tax services available from the Internal Revenue Service. The publication includes information on free tax publications; toll-free telephone service, including recorded tax information and automated refund information; education programs, such as Small Business Workshops; and films that are available for loans to groups. It also contains tips on filing tax returns, information about IRS programs such as electronic tax filing and the Problem Resolution Program, and other information, such as how to check the status of a refund. A list of toll-free phone numbers, Tele-Tax phone numbers, subjects, and tape numbers, and instructions for using the Automated Refund Information Systems are included.

The following are publications that older Americans may order:

—Publication 523, "Tax Information on Selling Your Home," provides that persons 55 years of age or older are allowed a once-in-a-lifetime exclusion of up to $125,000 of the gain on the sale of their personal residence.

—Publication 524, "Credit for the Elderly or Disabled", provides that individuals 65 and over are able to take the Credit for the Elderly or Disabled, reducing taxes owed. In addition, individuals under 65 who retire with a permanent disability and receive taxable income from a public or private employer because of that disability will be eligible for the credit.

—Publication 554, "Tax Information for Older Americans," provides that single taxpayers age 65 and over are not required to file a federal income tax return unless their gross income for the year was $5,700 or more (as compared to $4,950 or more for single taxpayers under age (65). Married taxpayers who could file a joint return are not required to file unless their joint gross income for the year was $9,500 or more if one of the spouses is 65 or over, or $10,000 if both spouses are 65 or over.

—Publication 721, "Comprehensive Tax Guide to U.S. Civil Service Retirement Benefits," and Publication 575, "Pension and Annuity Income" provides information on the tax treatment of retirement income.

—Publication 907, "Tax Information for Handicapped and Disabled Individuals," covers tax issues of particular interest to handicapped and disabled persons and to taxpayers with disabled dependents.

—Publication 915, "Social Security Benefits and Equivalent Railroad Retirement Benefits," assists taxpayers in determining the taxability, if any, of benefits received from Social Security and Tier I Railroad Retirement.

All publications are available free of charge. They can be obtained from IRS by using the order forms found in Publication 910, the tax forms packages or by calling the IRS Tax Forms number listed in the telephone directory. Many libraries, banks, and post offices stock the most frequently requested forms, schedules, instructions, and publications for taxpayers to come in and pick up. In addition, many libraries stock a reference set of IRS publications and a set of reproducible tax forms.

Taxpayer Information materials are continually being developed, updated, and distributed to field Public Affairs offices for release to thousands of news media outlets nationwide. Tax subjects covered in these releases include:

—Once-in-a-lifetime exclusion or gain on sale of residence.

—Higher standard deduction for 65 and over.

—Federal tax withholding on pension payments.

—IRS cautions senior citizens about fraudulent tax schemes.

—Reviewing tax status of pensions, annuities by retirees.
—Special tax advice for senior citizens.
—Retired taxpayers and estimated tax payments.
—Taxability of some social security benefits. (Also in Spanish)
—Tax Counseling for the Elderly. (Also in Spanish)
—Taxpayer assistance. (Also In Spanish)
—Publication 910.
—Availability of free tax help for senior citizens.
—Community Outreach Tax Assistance (Outreach).
—Older Taxpayers' need to file, or not to file tax returns.
—Medicare catastrophic premium.
—Tax benefits for the handicapped and disabled.

The annual Tax Supplement is prepared and distributed to newspapers across the country. The Tax Supplement contains camera ready articles and graphics designed for immediate use. Some of the articles contain information specifically geared to older taxpayers. In 1989, over 5,600 newspapers printed Tax Supplement Information during the filing season, reaching approximately 53.2 million taxpayers.

The IRS uses electronic media, including television, radio, cable, and videotapes to communicate information of interest to the older Americans. Some programs are distributed through electronic media and organizations targeted specifically to the aged.

Following are important examples of this service:

—The PBS Tax Clinic broadcast on February 5, 1989, and viewed by 4.5 million, contained information of special interest to older Americans. The IRS tax assistance phone lines were staffed during the program so that viewers could call with their tax questions.

—"Llego la Hora," the Spanish language tax clinic, reached 1.2 million viewers when it was aired on the Inivision Television Network in March 1989. It included information of particular interest to older Americans, and like the PBS Clinic, had toll-free telephone assistance available during the broadcast and for one hour afterward.

—A newly produced series called "Tax Tips and Tapes" contains 19 films 13½-minutes each designed to impart tax information to specific groups of taxpayers. One of the tapes provides information relevant to older Americans and is available in Spanish.

—IRS-produced radio and television call-in programs and panel discussion shows are used to inform Older Americans about tax on pension income, estimated tax, the Credit for the Elderly as well as other topics of interest to older Americans.

—IRS-produced radio and TV vignettes in contemporary, Spanish and country formats, also covered older American issues.

Activities in the area of tax forms development of special interest to older taxpayers in fiscal year 1989 include instructions for Schedule R (Form 1040), "Credit for the Elderly or Disabled." These instructions include information regarding the income levels at which taxpayers may not be able to take the credit. This information was included to make it easier for taxpayers to determine if they qualify for the credit.

OTHER TREASURY ACTIVITIES AFFECTING THE AGED

Other agencies of the Treasury also have an impact on the elderly as part of their specific functions. Developments during 1989 are summarized below:

—The Financial Management Service recognizes that receiving Federal payments on time is critical to a number of older Americans, especially those who may be living on a fixed income. The Service is proud of its on-time delivery rate for all payments issued during fiscal year 1989. The direct Deposit Program is a key factor that allows Financial Management Service to meet its goal of making payments timely. Following is a summary of activities associated with this program:

The Financial Management Service continues to promote the benefits of Direct Deposit/Electronic Funds Transfer through Direct Mail advertising. During 1989, the Financial Management Service enclosed inserts with recurring benefit checks (e.g., Civil Service Retirement, Veteran Affairs Compensation/Pension, Social Security) issued in May and September. In February, June, and August, A Direct Deposit promotional message appeared on the back of check envelopes for all benefit checks. Check inserts and check envelope messages serve as marketing aids to promote the convenience, safety, and reliability of depositing Government payments into personal checking or savings accounts by using Direct Deposit.

The Financial Management service has continued to support the Social Security Administration's Direct Deposit enrollment initiatives by developing and distributing specific promotional materials for the Social Security Administration's district offices nationwide. The district offices, in turn, will provide materials to benefit recipients.

On January 3, 1989, the Financial Management Service and the Social Security Administration tested the use of the Automated Clearing House Prearranged Payment and Deposit Plus Special Type "05" Addenda (PPD+) Format, to transmit the 1989 cost-of-living adjustment notices and payments to Social Security Direct Deposit beneficiaries. The test was conducted with Direct Deposit Social Security payments sent to a portion of Chase Manhattan Bank customers. The test results were favorable, and warranted expanding the test. In December 1989 and January 1990, the PPD+ Format will transmit 1990 cost-of-living adjustment notices, along with the payment to a test area which includes Social Security Direct Deposit beneficiaries in the South Carolina and New York Automated Clearing House areas, and the Chase Manhattan Bank and its customers.

The Electronic Benefits Service Program is the first federal attempt to coordinate activity for the electronic delivery of benefits. Individual agencies at the Federal, State, and local level have undertaken a variety of pilots which show that plastic access cards can be used successfully to deliver benefits. In November 1989, the Financial Management Service and the Social Security Administration initiated the first test to distribute Supplemental Security Income benefits electronically through ATMs and point-of-sale terminals in the Baltimore, MD, area. Security Income check recipients in Baltimore will use a "Secure-Card" to withdraw monthly benefits from the MOST ATM network and point-of-sale terminals, free of charge. Supplemental Security Income check recipients were targeted for this test because approximately 50 percent of these recipients have no banking relationship. The evaluation of the test will help the Financial Management Service and the Social Security Administration determine whether offering the Electronic Benefit Service as an option to the unbanked Supplemental Security Income benefit check recipients is feasible.

In 1989, the Financial Management Service formalized a "Relations Management Project", focused on increasing awareness about Direct Deposit initiatives with several consumer groups. As part of these efforts, the Financial Management Service began actively working with the American Association of Retired Persons, to consider joint ventures to assess and satisfy mutual customer needs. The Financial Management Service provided suggested questions for a survey that the American Association for Retired Persons is conducting. The results of this survey should provide information on concerns about the Government's payment. In addition, feedback from the survey will be used to develop awareness materials for seniors and to identify areas in which payment systems can be modified.

The Financial Management Service also worked with the Consumer Information Center to provide information for public service radio spots about Direct Deposit. The public service announcements were distributed to over 4300 radio stations across the United States, with 668 announcements being provided in Spanish.

The Financial Management Service has continued to support the National Crime Prevention Coalition's crime prevention awareness efforts in meetings with older Americans, by providing Direct Deposit marketing materials.

The Financial Management Service was featured in articles about Direct Deposit in *Milestones*, Philadelphia's first newspaper for older Americans. The articles appeared in the September and October issues of the newspaper.

Also, in 1989, the Financial Management Service's seven regional Customer Assistance Staffs engaged in numerous activities promoting Direct Deposit, as well as the features of the Limited Payability legislation to older Americans. The staffs met with Senior Citizens Organizations, displayed exhibits at seniors functions, and provided marketing materials to state Departments on Aging.

The U.S. Savings Bonds Division provides millions of older Americans with important tax and interest rate information on a regular basis throughout the year in a variety of ways. Through its convenient, toll-free information service (1-800-US Bonds) more than 660,000 callers, including the elderly, received current information and assistance during fiscal year 1989. Also during the year, the Division continued its easy-to-purchase mail order program via IRS refund checks that resulted in Bond sales of $13 million, a 300 percent increase over fiscal year 1988. In addition, millions of older Americans were kept informed of the Bond program through closely coordinated efforts with large national organizations such as AARP, Veterans of Foreign Wars, and many other groups. Finally, all our promotional materials and media advertising contain specific references to the benefits of Savings Bonds in retirement.

Beginning October 1988, Public Debt initiated a project to locate investors owning matured registered securities which have not been presented for payment. The investors contacted were reminded that they held matured securities, that the securities were not paying interest, and where the securities could be presented for payment. Those investors unable to locate their securities were advised to file claims with the Bureau of the Public Debt. Some securities were owned by elderly individuals who simply forgot they owned securities, and made no attempt to redeem their securities or contact the Treasury as to what action should be taken. This initiative will assist elderly individuals in redeeming lost or forgotten securities.

In March 1989, Public Debt installed a new menu driven telephone system. The new multi-line, multi-function voice response system offers callers a selection of message recordings concerning general and specific information about Treasury securities. The same menu options are available for both touch-tone and rotary callers. Touch-tone callers punch in a code for the specific information requested while rotary callers make their election of message by responding "Yes, I would" at the end of the question. The recordings are very clear and offer the caller the opportunity to talk to an analyst if the caller needs further assistance. The quality of the recordings and the opportunity to obtain this information 24 hours a day is particularly helpful to elderly investors, many of whom are physically unable or find it very difficult to make personal visits or telephone calls at normal office hours.

The titles of the TREASURY DIRECT Reinvestment forms were revised to include the type of security reinvested. This will assist elderly individuals in selecting the correct form and will improve the services provided to investors.

Initiative in the Savings Bond Program:

—During fiscal year 1989, Public Debt's Savings Bond Program implemented electronic deposit of interest payments for newly issued HH bonds. This initiative allows all participants, including the elderly, to realize the benefit of having their semi-annual interest payments deposited immediately to their account(s).

—Along with the electronic deposit of interest payment initiative, two associated forms were revised to simplify completion by making the forms easier to read, furnishing clearer instructions, and specifically designating the areas where information is required. This redesign should be especially beneficial to the elderly as these forms are now obviously easier to read and complete.

—It is planned that in fiscal year 1990, all other forms associated with the reissuance of HH bonds will be redesigned in a similar manner. The redesigned forms will simplify completion by all participants, including the elderly, in the Savings Bond Program. The method of specifically identifying the required information areas by using large white boxes on a colored background, is especially beneficial to those aged with sight difficulties, as these essential areas stand out on the form.

—In July 1989, Public Debt announced a final maturity policy for savings bonds. The new "40–30–20" policy for savings bonds is of interest to elderly individuals because now they can determine when their bonds cease earning interest based on the anniversary dates of their bonds. Series E bonds issued before December 1965 sto earning interest on their 40th anniversary. After December 1965, Series E, Series EE, Series H, and Savings Notes stop earning interest on their 30th anniversary. Series HH bonds stop earning interest on their 20th anniversary.

—The Office of Consumer Affairs continues to serve as the liaison between the Department of the Treasury and individual senior citizens and senior citizen organizations, assisting them in determining which office or department can best answer their questions or help to solve their problems. This Office works with groups concerned with seniro citizens and issues tha affect the elderly.

—During 1989, the Office of the Comptroller of the Currency (OCC) continued its active liaison with national based organizations including the American Association of Retired Persons to share information about banking related issues. Additionally, during 1989 OCC district offices continued their outreach programs for purposes of contacting and meeting with local consumer and community groups to share information about banking related issues. Organizations representing the elderly were among those contacted.

In October 1989 the OCC sponsored a roundtable for national bankers to encourage them to voluntarily provide basic banking services to customers. These customers may include low- and moderate-income, young, retired, or other customers who may be unable to meet customary minimum balance requirements or pay regular charges associated with some conventional banking services.

The OCC continued to enforce the Equal Credit Opportunity Act and Regulation B as part of its responsibility for ensuring a high level of compliance with law by national banks. The Equal Credit Opportunity Act is particularly relevant because it prohibits discrimination in credit transactions because of age, provided the applicant has the capacity to enter into a binding contract. Enforcement of the law is carried out during examinations of national banks.

The OCC also is responsible for resolving complaints against national banks. Through the first 9 months of 1989, the OCC received over 10,000 complaints. Older Americans seek OCC's assistance in resolving problems with their bank.

—The Treasury Department continued to protect elderly recipients of Government payments through the vigilance of the Secret Service. During fiscal year 1989, the Secret Service closed 45,084 Social Security check forgery cases and 4,603 Supplemental Security Income forgery cases. In addition, the Secret Service close 2,644 check forgeries involving Veterans' benefits, 1,342 check forgeries involving Railroad Retirement Checks, and 12,652 check forgeries involving Internal Revenue Checks. The majority of these checks were issued to retirees. The forger was identified in 90 percent of all the cases involving check forgery.

The Secret Service also conducted over 11,500 investigations involving attempts by individuals to illegally divert funds during the direct deposit/electronic funds transfer process. Elderly Americans have been encouraged to utilize the electronic transfer process as a matter of convenience and as a safeguard against the loss of funds. The efforts of the Secret Service protect elderly Americans against financial losses during the electronic transfer process.

—The Bureau of Engraving and Printing continued to recognize the special needs of aging citizens during 1989.

Services to assist senior citizens who tour the bureau's Visitor Center included:

—Tour guides to assist senior citizens with special needs;
—Wheel chairs as needed for those senior citizens touring the facility;
—Ramps and wide entrances for those using wheel chairs or walkers; and
—Rest rooms designed to accommodate persons using wheel chairs or walkers.

The Bureau provides CPR training on an on-going basis to the tour staff, medical and police units in the event that an emergency involving a senior citizen should occur.

The Bureau also continues to engage in initiatives related to training for its aging employees.

The Pre-Retirement Program is for persons 50 years of age and over. The Program, also open to spouses, emphasizes the importance of planning for retirement in advance. It is offered to employees who are planning to retire within the next 5 years and covers such areas as: Calculation of benefits, financial planning, discovering hidden talents, legal affairs, relationships, and health.

The Bureau's on-site medical staff provides Life-Style counseling for senior citizens. The emphasis is on wellness, prevention of disease, and includes advice on nutrition and weight control, testing of blood pressure and cholesterol level, and examinations of possible vision and hearing deficiencies.

—Bureaus are expanding their pre-retirement planning seminar programs. The seminars, which are offered to employees nearing retirement, generally include information on retirement and other Federal benefits; health and fitness; retirement housing; retirement investments; taxes (individual and estate); and other topics of interest to older persons.

Dependent care, a term which generally connotes the need for adequate care for a worker's dependents, has become an issue of interest within Treasury. Dependent care includes not only daycare for children, but also some degree of custodial care for elderly dependents who are incapable of fully independent living. Bureau Employee Assistance Program staffs are learning more about the problems associated with dependent care needs and are identifying appropriate community support services to assist employees with such concerns.

The Federal Employees' Part-Time Career Employment Act of 1979 continues to provide employment opportunities for older Americans, as well as other groups interested in less than full-time employment. Older Americans are a special target group for recruitment efforts to fill positions created under the Act.

Vigorous enforcement of the age discrimination statues by the Department continued to protect the interests of Older Americans. The Office of Equal Opportunity Programs is responsible for adjudicating complaints of age discrimination from both Treasury employees and applicants for employment.

—The Customs Service does not specifically target the aged for expedited customs processing. However, the aged are included among those who are entitled to request special treatment when they arrive from abroad. Besides the elderly, that group includes persons who are handicapped or ill and are unable to wait in line, a parent arriving with several infants, and person returning home for emergency reasons such as a death in the family. Any traveler meeting any of the above criteria may request to speak with a customs supervisor as soon as he or she arrives in the Customs area of the airport or other Customs port of arrival. The supervisor will provide all possible assistance in expediting the traveler's Customs clearance without, of course, compromising Customs enforcement responsibilities.

In addition, Customs works with the General Services Administration and local port authorities to insure that inspection facilities, including restrooms, permit the easy movement of persons who must use a wheelchair or walker.

Customs places a high priority on the tactful and courteous treatment of travelers. Although that policy is not limited to our treatment of the elderly, it may be of particular importance to people who have found it difficult to undergo a long, tiring flight from overseas and then must undergo immigration and customs processing.

ITEM 14. ACTION

DECEMBER 12, 1989.

DEAR MR. CHAIRMAN: Thank you for your letter of October 11, 1989, requesting ACTION's report on our 1989 accomplishments for the next issue of Developments in Aging.

In FY 1989, there was expanded emphasis in the Senior Companion Program for visually impaired seniors to both become volunteers and to be served by Companions. Foster Grandparents continued activity in the wide range of care and services to special needs children and the Retired Senior Volunteer Program expanded its intergenerational volunteer opportunities.

The examples provided in the enclosed report demonstrate that the more than 430,000 senior volunteers supported by ACTION programs make a significant and valuable contribution to their communities and to the Nation.

I greatly appreciate this opportunity to submit the FY 1989 report on ACTION's Older American Volunteer Programs.

Sincerely,

JANE A. KENNY,
Director.

Enclosure.

FOSTER GRANDPARENT PROGRAM IN FISCAL YEAR 1989

The Foster Grandparent Program (FGP) is one of the most successful and respected volunteer efforts in the United States. Through FGP, low-income persons aged 60 and older provide person-to-person service to children with special or exceptional needs. The program's budget for FY 1989 was $58.9 million.

In FY 1989, there were 264 ACTION-funded FGP projects in all 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands. In addition, there were 12 projects totally supported by State funds. Program services are now provided in some 685 counties nationwide.

Nearly 26,400 volunteers contributed about 21 million hours assisting children suffering from various handicaps, including abuse and neglect, behavior disorders, teen pregnancy, substance abuse, mental retardation, specific learning disability, and juvenile delinquency.

Foster Grandparents assist approximately 71,000 children every day. They serve 4 hours a day, 5 days a week. The program provides certain direct benefits to these low-income volunteers, including a stipend of $2.20 per hour, transportation and meal assistance when needed, insurance protection, and an annual physical examination. Foster Grandparent services are provided through designated volunteer stations in public agencies and private nonprofit organizations. They include schools, hospitals, juvenile detention centers, Head Start programs, shelters for neglected children, State schools for the mentally retarded, and drug abuse rehabilitation centers.

PROJECT EXAMPLES

Tampa, Florida.—At Beach Place, a residential group home in Tampa for drug abusers, juvenile delinquents and runaways, four Foster Grandparents provide a positive role model for youth who often have difficulties relating to grown-ups. They discuss problems, assist with recreational activities and help with school work. Five other Foster Grandparents work at Roosevelt High School, a school with a high absentee rate due to drug abuse. Working with children, many of whom come from Hispanic and migrant families, the Foster Grandparents provide support and a willingness to listen so as to help these youth develop critical self-esteem.

Paola, Kansas.—Four Foster Grandparents work with mentally retarded youth under 21 at a nonprofit gift/thrift shop. The shop provides retailing and business opportunities for youth who have already participated in a sheltered workshop program. The Foster Grandparents help their young clients learn to meet the public and to interact appropriately with customers and peers, thus developing experience in the world of work.

Whitfield, Mississippi.—Six Foster Grandparents serve at the Shelter for Battered Families in Hinds County, MS. Working with abused and neglected children, the Foster Grandparents provide one-to-one attention to at-risk children whose mothers are often unable to be supportive due to their own emotional upheaval. The Grandparents work with children who are too young for school. They work with children in a day care program and with toddlers in a nursery.

New FGP Projects

In FY 1989, ACTION awarded 12 new FGP projects in the South and Southwest. These new projects will focus volunteer resources on children identified as being at-risk of substance abuse, physical/sexual abuse, abandoned/neglected, juvenile delinquency, status offenders, and other similar problems.

The projects are located in: La Grange, GA; Black Mountain, Raleigh, Waynesville, Greensboro and Shelby, NC; Laurens, SC; Henderson, Clarksville, Nashville and Fayetteville, TN; and Nederland, TX.

These projects are budgeted to generate over 660 additional volunteer service years (VSYs).

Non-ACTION Funding

Some $24.1 million in non-ACTION funding was contributed to support FGP projects nationwide. About $13.5 million came from 49 State governments, either through direct appropriations or contributions from State-funded agencies. The balance of $10.6 million was from county/city governments and private sector sources.

Total non-ACTION project funds represented approximately 41 percent of the total Federal appropriation for FGP in 1989. This funding represents an increase of over $1 million from last year.

Twelve non-ACTION funded FGP projects are operating in the Nation today: Seven in Michigan, one in Wisconsin, two in New Mexico, and two in Georgia.

Numbers and characteristics of FGP volunteers

DISTRIBUTION

	Percent
By sex:	
Female	88
Male	12
By ethnic group:	
White	56
Black	31
Hispanic	9
Asian	2
Native American	2
By age:	
White 60 to 69	38
Black 70 to 79	48
Hispanic 80 to 84	11
Asian 85 and over	3

Foster Grandparents with Handicaps: 10 percent

Characteristics of children served by Foster Grandparents and Volunteer stations.

Age of children:	Percent
0 to 5	36
6 to 14	37
15 to 20	22
21 +	5

RETIRED SENIOR VOLUNTEER PROGRAM IN FISCAL YEAR 1989

In FY 1989, with a budget of $30.9 million, the Retired Senior Volunteer Program (RSVP) completed its 18th successful year. There were 752 ACTION-funded projects and over 400,000 volunteers assigned to 43,000 community agencies nationwide, providing 72,500,000 hours of service. RSVP volunteers serve in courts, schools, museums, libraries, hospices, hospitals, nursing homes, and a wide range of other public and private nonprofit organizations. Volunteers serve without compensation, but may be reimbursed for, or provided with, transportation and other out-of-pocket expenses. All volunteers are covered by appropriate accident and liability insurance coverage.

The program continues to expand its efforts to match resources to the diverse needs of hundreds of American communities by providing increased opportunities for retired persons aged 60 and older to serve their communities on a regular basis in a variety of settings. Seven new projects with an eventual estimated 3,100 volunteers were funded in FY 1989 in areas previously unserved by RSVP.

A Family Caregivers Evaluation, published December 1988, conducted by Sociometrics, Inc., of Washington, DC, included 67 RSVP projects which provided respite to caregivers residing with their care recipients. RSVP volunteers said they were very satisfied with their assignments and served an average of 16 hours per week. Persons served stated RSVP volunteers help them do things they would not usually do, relieve depression, and bring about better understanding with their family members.

ACTION's current RSVP projects emphasize intergenerational activities, especially with "at-risk," literacy, substance abuse, and in-home care.

PROJECT EXAMPLES

Traverse City, Michigan.—Grand Traverse Probate Court volunteer program operates in cooperation with RSVP volunteers and the school system. The Probate Court volunteer program recognized a need to intervene in schools with "at-risk youth". The schools called RSVP as a source of volunteers who could work during the day in the elementary schools. RSVP volunteers provide one-to-one tutoring in the school, as well as companionship and role depiction to young males who need the attention of male adults. Elementary school age children from single-parent families experiencing abuse or neglect in the home, poor school performance and poor peer relationships are factors which school personnel consider in selecting students eligible for the Learning Partners Program. Learning Partners Program provides extra curricular events and outings for seniors and their young "learning partners." For example, one RSVP volunteer who works with three young boys travels from another county in the summer and lives in town in the winter so he can be sure to make it to school on time.

Omaha, Nebraska.—The Volunteer Security Aid Program of the Omaha Housing Authority was launched in 1982 with a handful of RSVP volunteers. The program now involves over 200 volunteers who perform a variety of security related tasks in 12 senior citizen high rise buildings. Volunteers are specifically trained by the Omaha Police and Fire Divisions to respond to any given emergency situation without being placed in physical danger themselves.

RSVP aides serve in shifts throughout a 14-hour day. Typically, one volunteer will keep watch of the emergency panel connected to each dwelling unit, another will monitor the entrance door to the lobby. Others will observe the parking lot from some vantage point inside the building, or walk the hallways, checking utility rooms and stairwells, and generally respond to persons in need. Volunteers have access to communications equipment for police and fire emergencies.

The program is recognized by the Department of Housing and Urban Development nationally as one of the outstanding volunteer programs in the publicly assisted housing field, and it recently received a President's Volunteer Action Award Citation.

Rural Nevada.—The RSVP sponsored by the Nevada Association of Counties extends to 15 rural counties—all of Nevada outside the two urbanized counties that include Las Vegas and Reno. One of the greatest needs, as in many other rural areas, is to supplement a support system for the homebound elderly, who often live isolated in remote areas.

Recently, the RSVP extended its Home Companion Program (HCP) with the goal of maintaining the elderly of Nevada in their homes whenever possible. The HCP is designed to work with existing services. The emotional support provided by volunteer companions supplement medical, home health, aging, and other social services, with their heavy caseloads. RSVP provides a key human ingredient to clients in Nevada's coordinated effort, and often assists those who do not meet the eligibility criteria required by other programs.

The HCP has adopted its guidelines from ACTION's Senior Companion Program. RSVP volunteers perform specific tasks such as visitations, shopping, and preparing meals. RSVP now has 60 volunteers who have been specially trained to meet client needs. They are presently serving almost 150 elderly clients in 10 of the countries.

Tulsa, OK.—RSVP volunteers are working with the automobile dealers association and the Police Department on project "Car Brand It." One of the biggest car theft rings in the United States led to "car branding," much like cattle branding became necessary in days when rustlers stole cattle from ranchers. The engine serial number is etched into each pane of glass in the vehicle, discouraging car thieves who are selling the stolen car intact and not willing to replace all windows. Two thousand were branded in 1988.

INTERAGENCY AGREEMENTS

ACTION/RSVP awarded 15 18-month grants of $5,000 each to continue the RSVP Intergenerational Library Assistance Project. This effort was established under an agreement between ACTION and the National Commission on Libraries and Information Science. It will place an additional 300 RSVP volunteers in 15 new locations to assist public library staffs provide current services and plan new activities for children and youth who are using the library after school in increasing numbers. Working together in drama, music, travel, arts and crafts, and computer programs, as well as one-to-one assistance in homework, will promote positive intergenerational relationships between the children and the RSVP volunteers.

NON-ACTION SUPPORT

Projects have successfully generated non-ACTION resources to help expand and improve volunteer services. RSVP sponsors, their advisory councils and staff, have used imaginative and varied approaches to attract cash and in-kind contributions. RSVP's total non-ACTION support was $29.2 million by the start of calendar year 1989, an increase of 8.1 percent from the previous year. Non-ACTION support was 49 percent of the total funding for RSVP.

PRIVATE SECTOR FUNDING

Forty-six percent of RSVP's non-ACTION funds comes from the local private sector. Private resources generated by RSVP projects totaled $13.4 million nationally for 1988. This reflects an increase of 108 percent in annual private support since 1983.

Much of this private support comes through the nonprofit community sector. United Way organizations now provide annual allocations to RSVP projects in 339 localities totaling over $3.4 million. Other cash and in-kind resources are provided by a myriad of community service, civic, and religious organizations, as well as through local fundraising events. Approximately $1.5 million of RSVP's total private support comes directly from the business and corporate sectors. This has increased each year and represents over 5 percent of RSVP's total non-ACTION support.

PUBLIC SECTOR FUNDING

RSVP generates a significant portion of its non-ACTION support in cash and In-kind from the community where it operates in a "funding partnership" with that community. For example:

—Almost thirty-seven percent of RSVP's non-ACTION funding comes through city/county governments. This category includes other Federal funds administered at the local level.

—As of January 1989, 32 States appropriated funds in their budgets for RSVP. These earmarked State funds total almost $5 million. All funding through State governments account for over 17 percent of RSVP's non-ACTION support.

Characteristics of RSVP volunteers

	Percent
Distribution by sex:	
Male	24
Female	76
Distribution by age:	
60 to 79	34
70 to 79	47
80 and over	19
Distribution by ethnic group:	
White	84.2
Black	10.6
Hispanic	3.7
Asian/Pacific Islander	1.2
American Indian or Alaskan Native	.3

SENIOR COMPANION PROGRAM IN FISCAL YEAR 1989

The Senior Companion Program (SCP) offers person-to-person volunteer opportunities for low-income Americans aged 60 and older. The Companions provide personal assistance and peer support, primarily to older adults. Clients served by Companions are chronically homebound with physical and mental health limitations and at risk of institutonalization. Senior Companions strengthen their clients' capacity to live independently in the community. They also ease the transition from institutions back into the community.

The program's appropriation for FY 1989 was $25.1 million, funding 142 projects and 7,200 volunteer service years nationwide. Senior Companions contributed approximately 7.5 million hours assisting approximately 25,200 homebound clients. In FYU 1989, 27 non-ACTION funded projects in 12 States supported 1,787 Companions and served approximately 6,255 clients.

PROJECT EXAMPLES

Pittsburgh, Pennsylvania.—During the 6 years Jean Moskowitz has been with the Senior Companion Program, this 81-year Pittsburgh woman has assisted the frail homebound elderly who need regular assistance to retain their independence. She has carried a weekly caseload of five clients. Among the services she currently provides are shopping, cooking, peer support and budget planning. On of her clients is blind. Her Jewish cultural background was particularly helpful in assisting an older handicapped Russian immigrant to negotiate the county health system and integrate into mainstream America.

Moskowitz received a special citation from the Governor of Pennsylvania and was featured in a Newsweek article on voluntarism. The Pittsburgh project is the second largest in the nation and is sponsored by the Allegheny County Department of Aging.

In Providence, RI, a 75-year old female World War II veteran provides respite care to an older couple through the SCP Veterans Challenge Grant Program, an in-home service activity that assists veterans discharged from VA Medical Centers.

Through the Rhode Island Department of Elderly Affairs SCP, caregiving is directed to a 73-year-old man with battlefield injuries which induced chronic diabetes and circulatory problems that left him homebound. The Companion assists with a range of motion activities and provides peer counseling that builds on shared combat experiences in World War II. The program also provides respite to the client's wife. She is able to leave the home to shop and visit friends during the 3 days each week that the Companion visits their home.

In Wasington, DC, a 67-year-old Companion serves two clients, both vision impaired. One is totally blind. The other, a diabetic, is partially blind. The Companion takes his totally blind client on long walks, easing the burden on his wife who works full-time. The Companion reads to his partially blind client and recently worked with Goodwill Industries to completely furnish his apartment. Both clients were referred to the University of the District of Columbia SCP by the Columbia Light House for the Blind.

SCP EVALUATION

A Family Caregiver Services Evaluation of 48 Senior Companion projects, published December 1988 and prepared by Sociometrics, Inc., of Washington, DC, concluded that respite services provided by Senior Companions to primary caregivers of homebound elderly clients are much needed, provide a high cost benefit return, "warranting both appreciation and expansion". Three-quarters or more of the care recipients surveyed in the research sample felt that caregivers seemed happier, have more time to do things that needed to be done, and have more time for themselves. Slightly less than 50 percent of the care recipients felt that caregivers seemed less tense or upset, take better care of the elderly's physical needs, and have more time to spend with them.

SCP/AFB PARTNERSHIP GRANT

In FY 1989, ACTION awarded the American Foundation for the Blind (AFB) a 2-year $219,540 Partnership Grant to operate a demonstration program involving visually impaired Senior Companions to serve older visually handicapped clients in their homes.

Under the grant, SCP and AFB will name existing local SCP projects as subgrantees to generate five volunteer service years at each of the sites, an equivalent of 100 hours of service per week for each site. Demonstrated ability to generate local funds to continue these compenents after the 2-year funding period is a condition of the sub-grants.

NON-ACTION FUNDING

Over a 6-year period, non-ACTION funding support through State, and local government agencies and from the private sector grew from $4.4 million in 1983 to $13.2 million in 1989. This is equivalent to 52 percent of the FY 1989 ACTION funds allocated to SCP projects.

In addition, 27 non-ACTION funded projects were operational in various parts of the country during the fiscal year. These projects are located in: New Jersey, New York, Ohio, Georgia, Illinois, Iowa, Michigan, New Mexico, Oklahoma, California, and Nevada.

Numbers and characteristics of SCP volunteers

	Percent
Distribution by age:	
60 to 69	45
70 to 79	44
80 to 84	7
85+	4
Clients:	
Ages:	
75+	54
60 to 74	33
46 to 59	6
22 to 45	7
Ethnic groups:	
White/Other	57
Black	31
Hispanic	7
Asian	3
Native American	2
Distribution by sex:	
Female	83
Male	17

ITEM 15. COMMISSION ON CIVIL RIGHTS

DECEMBER 12, 1989.

DEAR MR. CHAIRMAN: This is in response to your letter to William Allen, then-Chairman of the Commission on Civil Rights, requesting information for your annual report, Developments in Aging.

During fiscal year 1989, the Commission continued to process complaints; of 1,373 complaints received, 21 alleged discrimination on the basis of age and were referred to the appropriate agency. (The Commission is not authorized to investigate complaints, except for those alleging denial of voting rights.)

In February 1989, the Commissioners approved a national office project to examine discrimination against the elderly. Planned to begin in fiscal year 1990, the project will explore the types of age discrimination recognized by the courts and administrative agencies and age discrimination in employment and the provision of health care.

Also in February, the Arkansas Advisory Committee to the Commission held a community forum in Little Rock, which resulted in a published summary report, *Civil Rights Concerns of Older Americans*. Forum participants provided information on such issues as physical and emotional abuse of nursing home residents and denial of their constitutional rights; restrictions on their ability to vote, discrimination in employment, credit, insurance availability, and access to services; and the lack of availability of legal resources.

If you have any questions regarding this information, please contact my office, 523-5571.

MELVIN L. JENKINS,
Acting Staff Director.

ITEM 16. CONSUMER PRODUCT SAFETY COMMISSION

OCTOBER 31, 1989.

DEAR MR. CHAIRMAN: Thank you for your letter of October 11, 1989, requesting that we submit a report to the Senate Special Committee on Aging about the Commission's activities to improve safety for older consumers.

I have enclosed the report to be included in "Developments in Aging" and appreciate the opportunity to submit this information.

Sincerely,

ANNE GRAHAM,
Acting Chairman.

Enclosure.

REPORT ON ACTIVITIES TO IMPROVE SAFETY FOR OLDER CONSUMERS

In 1989, the U.S. Consumer Product Safety Commission (CPSC) continued to distribute several publications developed in previous years to promote safety for older consumers. These publications include:

"Home Safety Checklist for Older Consumers," a room-by-room check of the home, identifying hazards and recommending ways to avoid injury.

"Product Safety and the Older Consumer: What Manufacturers/Designers Need to Consider," a booklet for manufacturers and designers of products used by older people. The booklet identifies several design changes that would make consumer products safer for older people to use.

"What Smart Shoppers Know About Nightwear Safety," a brochure developed and distributed jointly by CPSC and the American Association of Retired Persons (AARP). The brochure encourages older consumers to look for sleepwear that is flame resistant.

In addition, CPSC is working on three projects related to older consumers:

"Nightwear for the Elderly" encourages the development of voluntary industry actions to make flame-resistant sleepwear available to older people. Appropriate flammability labeling is being considered. The goal is to help reduce deaths and burn injuries suffered by older consumers each year in sleepwear fires. An early result of this project was the development of the brochure "What Smart Shoppers Know About Nightwear Safety," jointly distributed by CPSC and AARP.

"Vulnerable Populations" will identify regulatory initiatives which CPSC could take in the 1990s to protect such vulnerable populations as children, the elderly, low-income groups, the handicapped, non-English speakers, and others from product hazards. The elderly (age 65 and up) were involved in about 7 percent of all emergency room-treated injuries last year, a proportion somewhat smaller than their representation in the U.S. population (about 12 percent). However, when accidental deaths were examined, CPSC found that the rate of fatal injury for persons over age 65 was more than double the rate for persons under age 65.

"Innovative Child-Resistant Packaging" encourages the development of child-resistant packaging that is easier for older people to use but still child-resistant. CPSC has data demonstrating that child-resistant packaging can prevent childhood poisonings. However, many adults (including older people) do not use child-resistant packaging because they find it physically difficult to use. The CPSC project demonstrates that safety packaging can be developed to be easier for older people to use while still child-resistant.

ITEM 17. ENVIRONMENTAL PROTECTION AGENCY

DECEMBER 8, 1989.

DEAR MR. CHAIRMAN: Thank you for your letter of October 11, 1989, requesting information regarding research on aging performed by the Environmental Protection Agency.

We consider this an important topic and participate wherever we can to contribute to our knowledge about the effects of pollution on the aging process.

A book edited by investigators from our Health Effects Research Laboratory (HERL), entitled "Aging and Environmental Toxicology: Biological and Behavioral Perspectives," will be published by The Johns Hopkins University Press in early 1990. It is a state-of-the-art review and summary of the field of geriatric toxicology. The book examines how chemicals in the environment alter the aging process, and how the body's response to environmental chemicals change with age.

Investigators at HERL have also been involved with the preparation of a monograph on "Principals for Evaluating the Effects of Chemicals on Aged Populations" for the World Health Organization's International Programme on Chemical Safety (WHO/IPCS). Background papers for this document are near completion and will be submitted to the WHO/IPCS staff for preparation of the final publication. It is anticipated that this document will be available in the latter part of 1990.

We currently have one in-house project, also at HERL, evaluating the effects of xenobiotics on the reproductive systems in aging animals. This project has focused on the interaction between age-dependent pituitary gland function and exposure to environmental toxicants. In addition, studies evaluating alterations in pituitary function in the middle-aged female have been completed and the results presented at two professional meetings during the past year. Briefly, this research is designed to evaluate the influence of xenobiotics on delayed ovulation and normal development of the conceptus in the female during the later portion of her reproductive life span.

Last year we reported that we had provided a grant to Dr. Deborah Drechsler-Parks at the University of California, Santa Barbara, to study pulmonary, metabolic, and ventilatory responses of older men and women to ozone and nitrogen oxide (R81-3049-03). The study period was to end in August 1989, but was extended without additional funds to the end of November 1989, in order to complete additional publications resulting from this research. The results from one group of studies were published in the *Journal of the Air Pollution Control Association*, 39:194-199, 1989, "Adaptation by Older Individuals Repeatedly Exposed to 0.45 Parts per Million Ozone in Two Hours" (copy enclosed). The manuscript containing the results from another study on aging men and women was submitted for publication in *Experimental Gerontology*. Additional manuscripts will be prepared as the data are analyzed.

I hope this information will be of use to you as you prepare your annual report on aging.

Sincerely yours,

WILLIAM K. REILLY.

Enclosure.

JAPCA 39: 194–199 (1989)

RS13049
Health

Adaptation by Older Individuals Repeatedly Exposed to 0.45 Parts per Million Ozone for Two Hours

John F. Bedi, Steven M. Horvath, and Deborah M. Drechsler-Parks
Institute of Environmental Stress
University of California
Santa Barbara, California

To test for an increased reaction to ozone (O_3) in older individuals following an initial exposure, and to test for adaptation and its duration, we exposed 10 men and 6 women (60–89 years old) in an environmental chamber to filtered air and 3 consecutive days of O_3 exposure (0.45 ppm), followed by a fourth O_3 exposure day after a two day hiatus. Subjects alternated 20-min exercise (minute ventilation = 27 L) and rest periods for 2 hours during each exposure. Subjects rated from one to five, 16 possible respiratory/exercise symptoms prior to and following the exposure. Pulmonary function tests were performed before, and during each rest period and following the exposure. Metabolic measurements were obtained during each exercise period. No significant changes in any symptom question occurred, in spite of a threefold increase in the total number of reported symptoms during O_3 exposure. Small but significant pre-to-post decrements on the first and second O_3 days in forced vital capacity (FVC—111 and 184 mL), forced expiratory volume in 1 (FEV_1—171 and 184 mL) and 3 seconds (FEV_3—188 and 172 mL) occurred without concomitant changes in any flow parameter of the forced expiratory maneuver. No differences in the group mean response in FVC, FEV_1 OR FEV_3 on the third or fourth day of O_3 exposure and the filtered air exposure were found. The observed changes were due to significant physiological changes in eight of the subjects. Unlike young subjects, no evidence of an increased pulmonary function response to a second consecutive O_3 exposure was observed. Changes in small airway response to O_3 (below 75 percent of FVC) without irritant receptor activation, would explain the observed pattern of responses.

Several reports[1-6] have indicated that young adults have a reduced pulmonary function response to ozone exposure (O_3) if they are exposed to a sufficient concentration of O_3 for 3 to 5 consecutive days. In general, larger decrements in various measures of pulmonary function occur during or following the second consecutive O_3 exposure day. This exaggerated pulmonary function response, if daily exposures are continued, is generally followed by a decrease response over the next 1 to 3 days, such that most subjects no longer respond to O_3 exposure with pulmonary function decrements. Available evidence[2,6] further indicated that the lack of pulmonary function response noted above, persists for only a short time (ie. 3 to 7 days) once regular exposures to O_3 cease.

We recently reported[7] on the pulmonary function responses of a group of healthy older men and women (51–76 years of age) exposed to 0.45 ppm O_3 for 2 hours alternating 20-min work (minute ventilation = 27 L) and rest periods. Older men and women were generally less responsive to O_3 than young adults. Only four of the 16 subjects, had decrements in forced expiratory volume in 1 second (FEV_1) of 7 percent or greater following the O_3 exposure. The most responsive of these older subjects had decrements in FEV_1 comparable to those observed in a healthy young adult of only "average" responsiveness (ie., 10–15 percent). Earlier, Schlenker and Jaeger[8] reported that consequent to resting exposure to a combination of 0.5 ppm O_3 and 0.5 ppm sulfur dioxide, older subjects (73 ± 7.7 years) had no significant responses in any pulmonary function measure, in contrast to significant decrements in younger individuals (25.5 ± 4 years). Recently, Reisenauer et al[9] reported that older women, but not older men, had an increase in respiratory resistance of 13 percent as a consequence of being exposed for 1 hour (two 10-min exercise periods) to 0.3 ppm O_3.

Although single exposures to O_3 have not elicited large group mean changes in pulmonary function of older adults, repeated exposures might cause significant decrements in the pulmonary functions of older individuals. Reduced pulmonary function due to aging, and the increased incidence of various pulmonary diseases among many older adults, make any further reduction in pulmonary function due to air pollution exposure a matter of concern.

We therefore, determined the pulmonary function responses of a group of healthy older men and women over 60 years of age to 3 consecutive days of O_3 exposure, and determined whether any decrease in the pulmonary function response to O_3 observed, persisted over 2 days of non-exposure in a relatively low pollution air basin (Santa Barbara, California).

Methods

Sixteen healthy non-smokers between 60 and 89 years of age volunteered to participate in this study (Table I). The purpose, attending risks and benefits of the study were explained verbally and were given on a written form to each subject prior to his/her voluntary consent to participate. The protocol and procedures were approved by the University's Committee on Activities Involving Human Subjects. Each potential subject was screened by medical history, resting 12-lead electrocardiogram, a battery of clinical pulmonary function tests, and a submaximal exercise test. The subjects participated in five experiments. All exposures were at the same time of day for each individual subject. The experimental schedule began on Tuesday with a 2-h control exposure to filtered air (FA). The subjects then participated in 2-h exposures to 0.45 ppm O_3 on Wednesday, Thursday and Friday of the same week. They then returned to the laboratory on the following Monday, and were re-exposed to 0.45 ppm O_3 for 2 hours to assess the effect of 2 days of non exposure.

The exposures were carried out in a 1.75 × 1.75 × 2.24-m double wall acrylic chamber. Ambient inlet air was chemical

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Table I. Subject's preliminary screening characteristics

Subj	Sex	Age	Height	Weight	BSA	FVC	FEV$_1$	FEV$_1$/FVC
		(yrs)	(cm)	(kg)	(m2)	(L)	(L)	
1	M	65	171.4	80.4	1.92	2.42	1.86	65
2	F	64	156.2	48.2	1.42	4.40	3.46	79
3	M	68	182.2	78.0	1.98	2.52	2.00	80
4	F	67	163.4	65.2	1.70	5.12	3.73	73
5	M	66	180.3	100.7	2.29	3.53	2.66	73
6	F	71	166.8	51.6	1.59	4.47	3.35	75
7	M	69	169.3	64.2	1.74	2.87	2.09	73
8	F	66	157.8	55.8	1.56	3.39	2.76	66
9	M	60	184.5	82.4	2.07	5.47	4.34	78
10	M	64	181.1	80.0	2.00	4.91	3.92	80
11	M	71	172.9	76.2	1.90	5.30	3.73	72
12	F	67	150.5	71.0	1.74	2.96	2.28	77
13	M	65	176.4	79.1	1.95	4.55	3.60	79
14	F	66	154.2	60.6	1.58	3.08	2.42	79
15	M	67	179.7	83.8	2.04	5.41	4.23	78
16	M	75	172.7	73.2	1.87	3.56	2.17	61
Mean		67.9	170.5	72.1	1.83	3.99	3.01	75
SD		6.6	10.1	15.2	0.23	1.07	0.87	6

ly and mechanically filtered prior to entering the chamber and was exhausted to the roof. The chamber air turn-over time was approximately 2.5 min. The mean ± standard deviation for the dry bulb temperatures (23.1 ± 1.1°C), relative humidity (46.1 ± 15 percent), and O_3 concentrations (0.451 ± .004 ppm) was obtained by averaging measurements obtained at 5-min intervals during the exposures.

During the 2-h exposures, the subjects alternated 20-min periods of exercise (n = 3) and 20-min periods of rest (n = 3). Ten subjects exercised on a cycle ergometer (Monark) and six on a motor-driven treadmill (Quinton) at a workload sufficient to induce a ventilatory minute volume (VE) of approximately 25 L. In consideration of the age of the group, subjects were given a choice of exercise equipment to facilitate the subject's completion of the three exercise periods. The appropriate workload for each subject was determined during the preliminary screening submaximal exercise test.

Inspired ventilation was measured during the last 3 minutes of each exercise period by software integration of the flow signal from a Fleisch #3 pneumotachometer, the calibration of which was verified with a known volume of air delivered with a 3-L syringe. Resting ventilation was not measured. Mixed expired gases were sampled from a 3-L mixing chamber at 100 Hz and measured for oxygen (Servomex paramagnetic analyzer) and carbon dioxide (Beckman LB2) concentrations, which were averaged over 30-s epochs. The analyzers were calibrated prior to and following each exposure with known gas concentrations. The electrocardiogram was continuously monitored (Hewlett Packard 1500A), and heart rate was recorded at 5-min intervals during exercise.

Functional residual capacity (FRC) was determined prior to, and immediately after each exposure by a helium dilution method on a 13.5-L water-seal spirometer (W. E. Collins). Three forced vital capacity (FVC) maneuvers were recorded before exposure began, 5 minutes after each exercise period, and following the 2-h exposure on a rolling seal spirometer (Model 822, Ohio Medical) which was interfaced to a microprocessor (Spirotech 300), which analysed and printed out the results of each test. All pulmonary function tests were performed with the subject in the standing position. The following were calculated from the FVC recordings: forced expiratory volume in 1 and 3 seconds (FEV$_1$ and FEV$_3$), forced expiratory flow rate between 25 and 75 percent of FVC (FEF25–75 percent), forced expiratory flowrate at 50 percent (FEF50 percent) and 75 percent of expired vital capacity (FEF75 percent). Expiratory reserve volume (ERV) and residual volume (RV) were calculated from the FRC recordings. All volumes were corrected to BTPS.

Ozone was generated from 100 percent oxygen by two ultraviolet O_3 generators (Ozone Research and Equipment Co.), and was added to the chamber via the air intake duct. The chamber O_3 concentration was continuously monitored by an ultraviolet absorption O_3 analyser (Dasibi 1003-AH) which was calibrated each year by the California Air Resources Board. The O_3 concentration used in this study, 0.45 ppm, is approximately at the third stage alert concentration (0.50 ppm) in the Southern California Air Basin. Although O_3 concentrations of 0.45 ppm occur only occasionally, this concentration was chosen to be comparable with other past work, and as a concentration which was likely to elicit a response, while minimizing irritation to the subject.

Before and following each exposure, the subjects completed a written questionnaire on which they were asked to indicate whether or not they experienced each of a list of 14 symptoms commonly associated with exercise and/or O_3 exposure. Symptoms were rated for severity on a scale of zero to five.

Data were analysed as the absolute volume change between pre- and post-exposure. The data analysis proceeded in several stages. The first step, a one-way analysis of variance comparing the changes between the FA and first O_3 exposures, was to determine whether the initial O_3 exposure induced significant decrements in any pulmonary function. Following a positive result, a three-way analysis of variance with repeated measures across time period and exposure days with a grouping factor of sex, was performed. Where significant factor interactions occurred ($P < 0.01$), a further analysis of the simple main effects and the Tukey multiple comparison procedure was performed to isolate the significant factor levels. In addition, subjects were classified as sensitive if the pre-post percent change in FEV$_1$ on the first O_3 day was 5 percent greater than the percent change in FA. Subsequent analysis of pre-post changes were analysed across the 5 exposure days with a grouping factor—subject sensitivity. The symptom data were analysed by the Friedman two-way analysis of rank test.[10]

Results

No differences across days in minute ventilation (27.3 L), respiratory frequency (21.2 breaths/min), oxygen consumption (0.83 1/min), or heart rate (89 beats/min) during the exercise periods were observed. The men (28.5 L) had a higher mean ventilation than the women (26.1 L). There was a significant day effect in the analysis of the respiratory quotient ($p < .03$), the final O_3 exposure day (1.02) was higher than the FA day (0.96).

Table II. Mean and standard deviation of pre-period changes in FVC, FEV$_1$ and FEF25–75% for all 16 subjects.

			FVC		
Period	FA day1	O1 day2	O2 day3	O3 day4	O4 day7
1	.010(.135)	−.002(.138)	−.001(.124)	−.047(.108)	−.011(.079)
2	−.002(.150)	.036(.125)	.085(.177)	.015(.143)	−.008(.112)
3	−.005(.138)	.119(.196)	.103(.230)	.022(.200)	.008(.179)
Post	−.084(.171)	.111(.285)*	.104(.290)†	−.043(.252)	−.043(.168)
			FEV$_1$		
Period	FA	O1 day2	O2 day 3	O3 day4	O4 day7
1	.029(.110)	−.001(.155)	.060(.138)	.010(.100)	.035(.080)
2	.011(.127)	.089(.077)	.084(.148)	.041(.130)	.025(.101)
3	−.000(.120)	.120(.158)‡	.132(.218)‡	.058(.134)	.044(.130)
Post	−.016(.094)	.171(.212)*	.164(.198)†	.067(.143)	.051(.104)
			FEF25–75%		
Period	FA	O1 day 2	O2 day3	O3 day4	O4 day7
1	.072(.227)	.193(.448)	.214(.430)	.141(.427)	.108(.319)
2	.051(.343)	.183(.268)	.161(.268)	.101(.420)	.039(.423)
3	−.038(.422)	.179(.233)	.301(.431)	.187(.415)	.084(.324)
Post	.089(.346)	.449(.442)	.406(.350)	.253(.447)	.231(.290)

* Significantly different from period 1 delta and from all other days at this time.
† Significantly different from all other days at this time.
‡ Significantly different from day 1.

The initial comparison of the pulmonary function tests indicated that there was a mean difference in the response to FA and the first O_3 exposure in FEV_1 and FEV_3 (Table II). The subsequent three-way analysis of variance indicated no group differences due to sex, and all further analysis reports results on the combined men and women data. Forced vital capacity ($p < 0.001$), FEV_1 ($p < 0.008$) and FEV_3 ($p < 0.000$) had significant exposure day/time period interactions. Pre-to-post decrements in FVC (111 and 104 mL), FEV_1 (171 and 164 mL) and FEV_3 (185 and 172 mL) on the first and second O_3 exposure days were significantly different from FA and the other exposure days ($p < 0.01$) and different from pre-to-period 1 on the first O_3 exposure day. Forced expiratory volume in the first second (FEV_1) and third second (FEV_3) exhibited significant decrements following the third measurement period—after 105 minutes of exposure. The period 3 values relative to the base line on the first (120 mL FEV_1) and second O_3 exposure (132 mL FEV_1) days were significantly greater than period 1 values relative to base line (−1 and 59 mL for FEV_1 on the first and second O_3 exposure days respectively), and different from the filtered air exposure (0 mL for FEV_1). No difference in the group response for FVC, FEV_1 or FEV_3 between FA or the third or fourth day of O_3 exposure was found.

There were no significant changes in any other pulmonary function test parameters, including flow parameters (FEF25–75 percent, FEF50, FEF75, peak flow), maximum ventilatory volume, expiratory reserve volume, or functional residual volume, whether analysis was performed on the entire group or the sensitive subgroup described below.

We further classified the subjects (eight sensitive and eight non-sensitive) according to a 5 percent greater pre-post decrement in the first O_3 exposure day compared to FA in FEV_1. We then compared the pre-post decrements across days with a grouping factor of sensitivity for all parameters of the forced expiratory maneuver. There was a significant day/group interaction ($p < .0003$) for FEV_1 as expected, since we classified our group according to FEV_1 changes. The first and second O_3 exposure days had significantly different decrements compared to FA only in the sensitive subjects. Day 1 and day 2 FEV_1 pre-to-post decrements in the sensitive subjects averaged 320 and 305 mL, respectively while the non-responders averaged 21 and 22 mL for the same two exposure days. Forced vital capacity and FEV_3 had significantly different pre-post decrements in the sensitive subjects on the first (294 mL and 360 for FVC and FEV_3) and second (284 and 323 mL for FVC and FEV_3) O_3 exposure days compared to the other exposure days (110, 26 and 13 mL for FA and day four and five, respectively). Non-sensitive subjects had increased pre-post measurements in the range of 50 to 70 mL for FVC and decrements of 2 to 25 mL for FEV_3 in all exposure conditions. There was no group

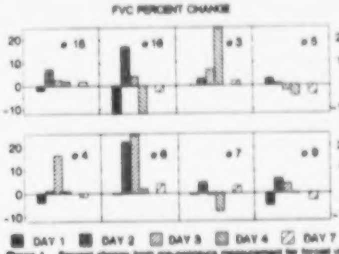

Figure 1. Percent change from pre-exposure measurement for forced vital capacity (FVC) by subject number for the eight sensitive subjects for each exposure day.

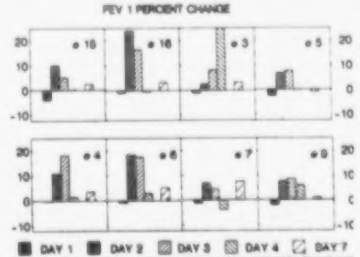

Figure 2. Percent change from pre-exposure measurement for forced expiratory volume in 1 s (FEV_1) by subject number for the eight sensitive subjects for each exposure day.

(sensitive vs non-sensitive) effect evident for FEF25–75 percent), only a day effect ($p < .05$); the decrements in the first O_3 exposure day (0.449 L/s) being greater than FA changes (0.089 L/s). There were no other significant comparisons. The comparisons between sensitive and non-sensitive subjects altered only the magnitude of the pre-post decrements and not the pattern of response (changes in forced expiratory lung volumes without concomitant changes in forced expiratory flow parameters). The sensitive subgroup was responsible for the observed effect in the entire group.

No difference in the response to any symptom question across days was evident, although the total number of reported changes in the response to the symptom questionnaire pre-to-post exposure was 12, 35, 33, 38, and 34 for the FA and 4 O_3 exposure days. The sensitive sub group accounted for approximately 66 percent of the number of reported symptoms, with two subjects accounting for 50 to 86 percent of the sensitive subgroup's response on any given exposure day.

Discussion

The present group results compare favorably with those we reported on a separate group of 16 subjects exposed under the same experimental conditions in FA and 1 day of 0.45 ppm O_3 (Drechsler-Parks et al),[7] extending our data base. In that study, we reported small but significant changes in FVC, FEV_1, and FEV_3 for the group mean data (a 5.6 percent decrement in FEV_1 equivalent to the present study of 5.6 percent). Only 25 percent of those initial subjects had changes greater than 7 percent in FEV_1, while eight of the 16 subjects in this study had a decrement of 7 percent or more on either the first or second exposure day. Our results (small but significant changes) compared to the negligible response reported by Schlenker and Jaeger[8] of older individuals exposed to 0.5 ppm O_3 and 0.5 ppm sulfur dioxide at rest for 1 hour, and the lack of response in any parameter of the forced expiratory maneuver reported by Reisenauer et al.[9] on men and women exposed for 1 hour to 0.3 ppm with either one or two 10-min exercise periods, are not in conflict. Reisenauer et al.[9] reported in women, only one uncorrelated change in respiratory resistance, a highly variable parameter. Our subjects were exposed to effective doses of 797 (for women) to 923 (for men) μL O_3—3.6 to 3.9 times greater than the cumulative effective doses in the Reisenauer et al.[9] study. Healthy young adults may not respond to the 221 μL O_3 cumulative effective dose used by Reisenauer and colleagues.

Several comparisons between our group mean data and the observations on young subjects can be made. First and foremost is the lack of response in at least eight of the 16 subjects in this study. Although there are young non-responders, the percentage is believed to be much lower, for example only 12 percent of the subjects in Horvath et al.[5] were non-responders. The second is the diminished response seen in our older subjects. This is partly due to the number of responders and partly to the inconsistency in responses observed both between variables (FVC, FEV_1 and FEF25–75

Table III. Mean and Standard deviations for all forced expiratory manouvers for each subject during filtered air exposure (n = 15, five measurement periods—triplicate tests) and for the best test measure for each period (n = 5).

	All measures			Best measures		
SUBJECT	FVC	FEV_1	FEF25–75% *	FVC	FEV_1	FEF25–75%*
1	2.30 0.08	1.57 0.16	1.26 0.28	2.32 0.06	1.71 0.08	1.45 0.30
2	3.89 0.14	3.14 0.11	3.26 0.23	4.01 0.13	3.20 0.12	3.20 0.25
3	2.18 0.10	1.89 0.07	2.58 0.28	2.29 0.06	1.96 0.02	2.60 0.08
4	4.32 0.13	3.46 0.10	3.39 0.16	4.39 0.10	3.52 0.05	3.44 0.18
5	3.24 0.09	2.43 0.06	2.01 0.13	3.27 0.04	2.48 0.02	2.11 0.18
6	3.73 0.16	3.03 0.12	3.09 0.18	3.83 0.11	3.14 0.08	3.22 0.07
7	2.73 0.08	2.08 0.10	1.86 0.22	2.79 0.05	2.16 0.04	1.98 0.10
8	2.98 0.14	2.70 0.08	4.22 0.30	3.04 0.14	2.74 0.06	4.32 0.29
9	5.13 0.09	4.2 0.07	4.33 0.21	5.16 0.10	4.24 0.04	4.39 0.10
10	4.77 0.15	3.73 0.10	3.46 0.23	4.48 0.08	3.80 0.04	3.50 0.13
11	4.74 0.12	3.74 0.07	3.54 0.24	4.74 0.11	3.78 0.06	3.61 0.14
12	2.84 0.06	2.25 0.07	2.19 0.18	2.88 0.07	2.29 0.07	2.12 0.17
13	4.32 0.14	3.41 0.09	3.21 0.15	4.39 0.16	3.46 0.09	3.20 0.13
14	2.76 0.13	2.25 0.04	2.51 0.36	2.77 0.08	2.27 0.04	2.54 0.11
15	5.15 0.09	4.26 0.06	5.09 0.42	5.17 0.09	4.27 0.07	5.12 0.51
16	3.36 0.19	2.06 0.13	0.98 0.27	3.45 0.17	2.14 0.08	0.99 0.20

* FEF25–75% for the best measure in each period is taken from the curve with the largest sum of FVC + FEV_1 during each period.

percent) and possibly within subjects.[11] When classified according to sensitivity, the eight responders exhibited significantly larger pre-to-post decrements on the first and second O_3 days (FVC 294 and 264; FEV_1 321 and 307; FEV_3 360 and 323 mL) compared to the group means (FVC 111, 104; FEV_1 171, 164; FEV_3 185, 172 for days one and two respectively.) Third, is the time course of response. In this study, the time period for a significant mean change in the pulmonary parameters was 106 minutes. This was during the final rest period, 5 minutes after terminating exercise. Young subjects have been reported to exhibit significant changes sooner in a 2 hour intermittent exercise protocol, but this may be due to the difference in the time and rotation of exercise and rest periods (the previous measurement time was 40 minutes earlier—at minute 65) and the analysis method of comparing changes relative to pre-values.

Comparison with studies looking at the adaptation response to O_3 in young adults, whether one uses the sensitive subgroup or all subjects, produces at least one difference—the lack of a increased response on the second O_3 exposure day reported by Horvath et al.,[5] Folinsbee et al.,[6] Hackney et al.[7] and others.[1-2,4] Although all of the above studies have commented on the increased response on the second exposure day, only three[4-6] demonstrated significant difference between the first and second exposure days. Thus the failure to observe the increased decrements in pulmonary function parameters after an initial O_3 exposure is not conclusive of a difference between the older subjects in this study and other studies. In this study, only three subjects[3,4,9] had larger decrements in FEV_1 on the second O_3 exposure day with a decrease in FEV_1 on the third O_3 exposure day.

An adaptation response after 2 days exposure does occur in older subjects based on the mean pre-post differences across exposure days. The pre-post decrements in any parameter measured on the third O_3 exposure day were not significantly different from FA. Nor were the pre-post decrements on the last exposure day significantly different from FA or the third O_3 exposure day. The group mean pre-to-post exposure decrements for FEV_1 were 16, 171, 164, 57 and 51 mL for FA, and the four O_3 exposures respectively. The mean pre-post decrement on the third O_3 exposure day is due almost entirely to subjects three and nine (Figure 2). Thus it appears that the sensitive subjects were adapted by the third O_3 exposure day with the exception of two subjects.

Even though we were able to demonstrate small but significant pre-to-post changes in FVC, FEV_1 and FEV_3 in this subject group and physiologically significant changes in these parameters in the sensitive subgroup, the lack of a response in FEF25–75 percent and FEF50 percent, and the inconsistency in percentage decrements in FVC and FEV_1 was disconcerting. In some subjects FVC did not change pre-to-post while FEV_1 exhibited a decrease; in others the change in FEV_1 was smaller then that in FVC, an observation not often noticed in young subjects (Figures 1 and 2).

To examine subject-test variability as a possible cause for the noted irregular pattern of response in these older subjects, we examined the subjects ability to perform the forced expiratory maneuver by comparing the measured parameters across time periods in the FA exposure. Table III contains the mean and standard deviation for all 15 tests (three trials in five measurement periods) in FA for FVC, FEV_1, and FEF25–75 percent. The standard deviation ranges from 0.02 to 0.41 for the 16 subjects, while the range for the best test in each period shows no change or small decreases (n = 5), indicating the repeatability of the forced expiratory maneuver in this subject group.

One hypothesis for the O_3 response in young adults is a decrease in inspiratory capacity with subsequent comparable decreases in FVC, FEV_1 and the flow parameters of the forced expiratory maneuver, resulting in increasing percentage changes across these variables, caused by irritant receptor activation. Beckett et al.[12] demonstrated that pretreatment with atropine was effective in blocking any changes in airway resistance, FEV_1 and FEF25–75 percent in subjects exposed to 0.4 ppm O_3 for 2.5 hours without blocking changes in FVC and respiratory symptoms. They suggested another mechanism, not dependent on a functioning muscarinic receptors, was also involved in the pulmonary response to O_3 exposure. Perhaps this mechanism is responsible for the changes observed in these older subjects. Changes in small airway response below 75 percent of FVC without irritant receptor activation could account for the observed response in our older subjects. There was no difference in the symptom response of these subjects across O_3 exposure days. Nor was there a difference between sensitive and insensitive if you consider two subjects in the sensitive subgroup account for half or more of the reported symptoms for this subgroup. The mean FEV_1/FVC ratio in our subjects was 75.5 percent and FEF25–75 percent, FEF50 percent and FEF75 percent would occur in the first second, any alterations occurring below 75 percent of the expired vital capacity would not be reflected in the flow parameters measured. It would also be possible to have changes in FVC not correlate with changes in FEV_1, ie., changes in FEV_1 but not in FVC, (an observation noted in more than one sensitive subject, Figures 1 and 2) and larger changes in FVC than in FEV_1 (subject 6). Of the two subjects with FEV_1/FVC ratios below 70 percent, one was a non-responder (subject 1) and the other exhibited significant increases in FVC following the FA day and the third O_3 exposure day (subject 16) without increases in FEV_1.

In conclusion, we were able to demonstrate small but significant decreases in the group mean response in FVC, FEV_1 and FEV_3 to exposure to 0.45 ppm O_3 on the first and second days of consecutive exposure. No increase in the pulmonary function response of the group to the second day of exposure in the above variables or any other test parameter was noted. An adaptive response on the third exposure day that persisted over the 72 hour period of non-exposure based upon the lack of any significant differences between these days and the FA day was observed. We did show that the physiologically significant decrements in FVC, FEV_1 and FEV_3 in eight sensitive members of the 16 subjects was responsible for the group mean changes. This subgroup however, also failed to demonstrate a significant increase pulmonary function response or alter the conclusions based upon the entire study group in any manner except for the magnitude of observed significant response. We suspect that the O_3 response, when it occurs in older individuals, is due to changes in the lower airways below 75 percent of the vital capacity. The variability of response in highly correlated parameters of the forced expiratory maneuver in this age group makes any conclusion of the nature of the response difficult, but our results in two studies suggest a different mechanism from the irritant receptor model proposed for the response in young subjects is responsible for the changes in FVC, FEV_1 and FEV_3 without concomitant changes in measures of flow.

Acknowledgments

We could not have conducted this research without the extraordinary commitment of our subjects and the efforts of our staff—Ms. V. Smith and graduate students, R. Williams, and H.-M. Chen.

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John F. Bedi is an Associate Research Physiologist. Steven M. Horvath, is Professor Emeritus and a Research Physiologist. Deborah M. Drechsler-Parks, is an Assistant Research Physiologist. All authors are affiliated with the Institute of Environmental Stress, University of California, Santa Barbara, CA 93106. This paper was submitted for peer review on September 13, 1988. The revised manuscript was received November 7, 1988.

ITEM 18. EQUAL EMPLOYMENT OPPORTUNITY COMMISSION

NOVEMBER 15, 1989.

DEAR MR. CHAIRMAN: On behalf of Chairman Thomas, I am responding to your October 11, 1989 request for the Equal Employment Opportunity Commission's submission for the committee's annual report, Developments in Aging.

Enclosed are copies of fiscal year 1988 annual reports from EEOC's Office of General Counsel [1] and Office of Program Operations. These reports contain information on EEOC's compliance and litigation enforcement efforts on behalf of victims of employment discrimination.

Please call me at 663-4900 if I can be of further assistance.

Sincerely,

DEBORAH J. GRAHAM,
Director of Communications
and Legislative Affairs.

Enclosure.

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[1] The publication "A Report of the Office of General Counsel October 1987 Through September 1988," submitted by the EEOC is retained in Committee files.

Office of Program Operations
Annual Report
Fiscal Year 1988

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I. INTRODUCTION

> *To ensure equality of opportunity by vigorously enforcing federal legislation prohibiting discrimination in employment through investigation, conciliation, litigation, coordination, regulation in the federal sector, and through education, policy research and provision of technical assistance.*
>
> *(EEOC'S MISSION)*

The Office of Program Operations was created in 1982 to accomplish all of EEOC's enforcement mandates embodied in the EEOC mission, with the exception of managing litigation actions.

The Director of the Office of Program Operations (OPO) serves as the principal advisor to the Chairman on equal employment opportunity administrative enforcement and government affirmative action matters. The staff ensures the effective and efficient management and implementation of the Commission's administrative enforcement and government affirmative action programs. The immediate Office of the Program Director has overall supervisory, management and fiscal responsibility for the Office. OPO is comprised of a number of program areas in Headquarters and fifty field offices to carry out the enforcement activities associated with EEOC's law enforcement mandate. OPO comprises the nucleus of EEOC's ongoing program activity to assist individuals who are potential victims of employment discrimination.

This report provides the status and accomplishments of OPO in fiscal year 1988. The report is divided into five sections. An executive summary graphically presents the major accomplishments for the fiscal year. Following the summary, information is provided on the organizational structure, mission and functions of OPO Headquarters and District Offices and overall OPO goals and objectives for 1988.

Accomplishments of each program are set forth in the final section of the report, including more indepth descriptions of office activities. The appendix provides supporting tables.

II. EXECUTIVE SUMMARY

The Office of Program Operations (OPO) accomplished most of the goals and objectives of its program related activities during the 1988 fiscal year. The Office, through its fifty field offices, clearly increased efficiency of operations and improved the quality of its investigative product. Achievement of these stated objectives resulted in higher productivity in charge resolutions, reduction of pending investigative workload, full implementation of new investigative strategies, and an increase in litigation activity.

Agencywide initiatives on local workload management led to full implementation of uniform methods of monitoring and tracking charge investigations throughout the field. Training in case management systems was provided to most District Offices during FY 1988. The measurable increase in the number of on-site investigations completed at respondents' facilities yielded better evidence obtained in shorter time periods. Field offices made great strides during FY 1988 toward overall timeliness, efficiency, and quality in the charge resolution process and in reducing the Agency's workload to manageable proportions.

OPO Headquarters components similarly achieved increased levels of performance in FY 1988 in support of field activities. These components performed at high levels of efficiency in systemic charge processing, review of field investigative findings, management of field operations, development of program related guidance, and provision of appropriate research for charge processing activities throughout the year. The following pages graphically highlight these field and Headquarters accomplishments.

The Appendix contains supporting numerical tables that are referenced under the graphs.

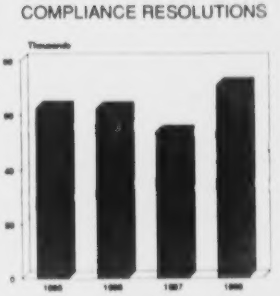

Figure 1

(See Table A.9)

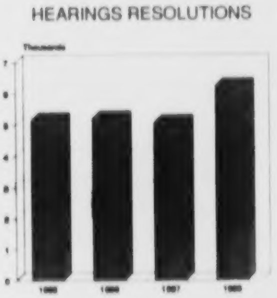

Figure 2

(See Table A.16)

While carrying out the commitment to improve the quality of charge investigations, the number of resolutions increased across all charge complaint processing areas: field office enforcement units, federal sector hearings units, and the new OPO program, Determinations Review Program (DRP), which began in the latter part of fiscal year 1987.

- o MORE THAN 70,700 CHARGES WERE CLOSED IN FY 1988, AN INCREASE OF 32 PERCENT BETWEEN 1987 & 1988, AND THE HIGHEST NUMBER SINCE 1983 (Fig.1).
- o HEARINGS RESOLUTIONS INCREASED 23 PERCENT FROM 5,047 IN 1987 TO 6,227 IN 1988 (Fig.2).
- o THE NUMBER OF CLOSURES PER ADMINISTRATIVE JUDGE INCREASED FROM 73 IN 1987 TO 82 IN 1988.
- o DURING 1988, DRP RECEIVED 8,604 REQUESTS TO REVIEW FIELD OFFICE DETERMINATIONS, AND CLOSED A MAJORITY (5495) OF THOSE RECEIVED.

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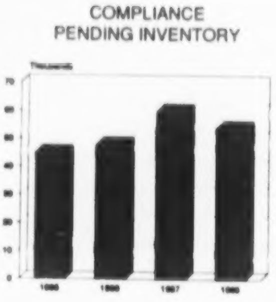


Figure 3

(See Table A.9)

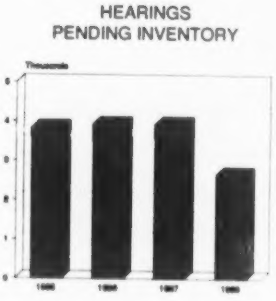
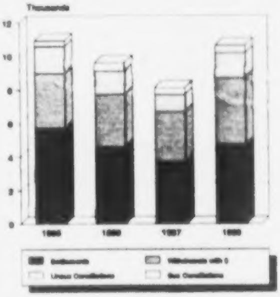


Figure 4

(See Table A.10)

Field office staff met inventory reduction goals in both compliance and Federal complaint activities through more efficient operations, better tracking of programmatic objectives, and better support from Headquarters personnel.

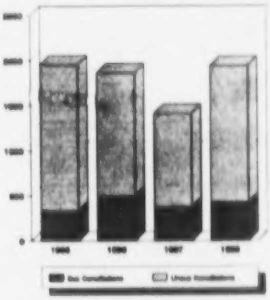
- o PENDING COMPLIANCE INVENTORY DECLINED BY 10 PERCENT BETWEEN FY 1987 AND 1988, A REDUCTION OF 7,900 CHARGES (Fig.3).
- o HEARINGS INVENTORY DECLINED BY 33 PERCENT FROM A HIGH OF 3,929 IN FY 1987 TO 2,651 IN FY 1988 (Fig.4).



MERIT RESOLUTIONS

Figure 5

(See Table A.5)



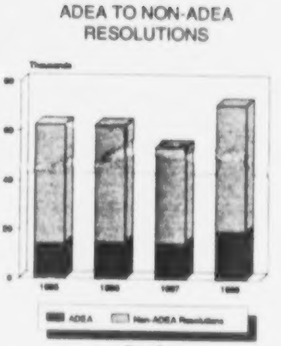
CAUSE RESOLUTIONS

Figure 6

(See Table A.6)

Merit Resolutions include settlements, successful and unsuccessful conciliations, and withdrawals with benefits. Successful and unsuccessful conciliations are completed only after findings of reasonable cause.

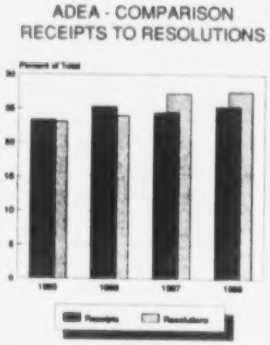
- o MERIT RESOLUTIONS INCREASED 31 PERCENT BETWEEN FY 1987 AND FY 1988 (Fig.5).
- o SETTLEMENTS AND WITHDRAWALS WITH BENEFITS REPRESENTED MORE THAN THREE-FOURTHS OF TOTAL MERIT RESOLUTIONS (Fig.5).
- o FINDINGS OF REASONABLE CAUSE INCREASED 37 PERCENT, FROM 1,412 IN FY 1987 TO 1,938 IN FY 1988 (Fig.6).



ADEA TO NON-ADEA RESOLUTIONS

Figure 7

(See Table A.8)



ADEA - COMPARISON RECEIPTS TO RESOLUTIONS

Figure 8

(See Tables A.2 and A.8)

Fiscal Year 1988 was the first year that the field closed more ADEA charges than received in a given year.

- RECEIPTS TO PROCESS CHARGING ADEA VIOLATIONS REPRESENTED ONE-FOURTH OF ALL EEOC RECEIPTS TO PROCESS IN FY 1988.
- THERE WAS AN INCREASE OF 34 PERCENT IN ADEA RESOLUTIONS IN FY 1988, COMPARED WITH FY 1987 (Fig.7).
- THE PROPORTION OF ADEA RESOLUTIONS REPRESENTED 27 PERCENT OF TOTAL RESOLUTIONS, A PROPORTION THAT HAS REMAINED CONSTANT OVER THE PAST TWO YEARS (Fig.8).

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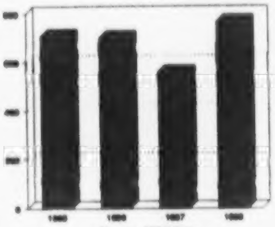
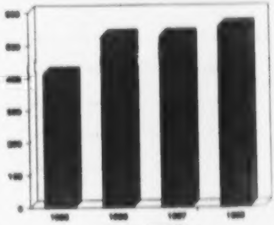


TOTAL LITIGATION RECOMMENDATIONS

Source: OGC Data

Figure 9

(See Table A.12)



TOTAL SUITS FILED

Source: OGC Data

Figure 10

(See Table A.12)

In a continuing effort to vigorously enforce the laws, field offices increased the number of on-site investigations in FY 1988, leading to higher quality determinations. This contributed to an increase in the number of District Office litigation recommendations submitted, and a higher number of suits filed.

- o FY 1988 LITIGATION RECOMMENDATIONS SUBMITTED TO THE OFFICE OF GENERAL COUNSEL INCREASED 37 PERCENT OVER THE 1987 FISCAL YEAR, FROM 557 TO 764 (Fig.9).
- o A TOTAL OF 554 SUITS WERE FILED IN FY 1988, FIVE PERCENT MORE THAN WERE FILED IN FY 1987 (Fig.10).

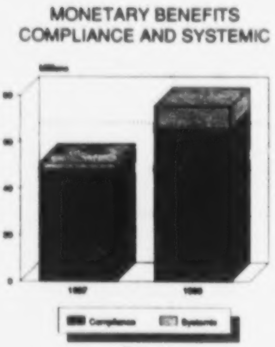


Figure 11
(See Table A.14)

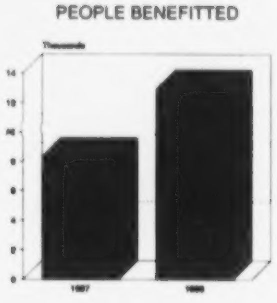
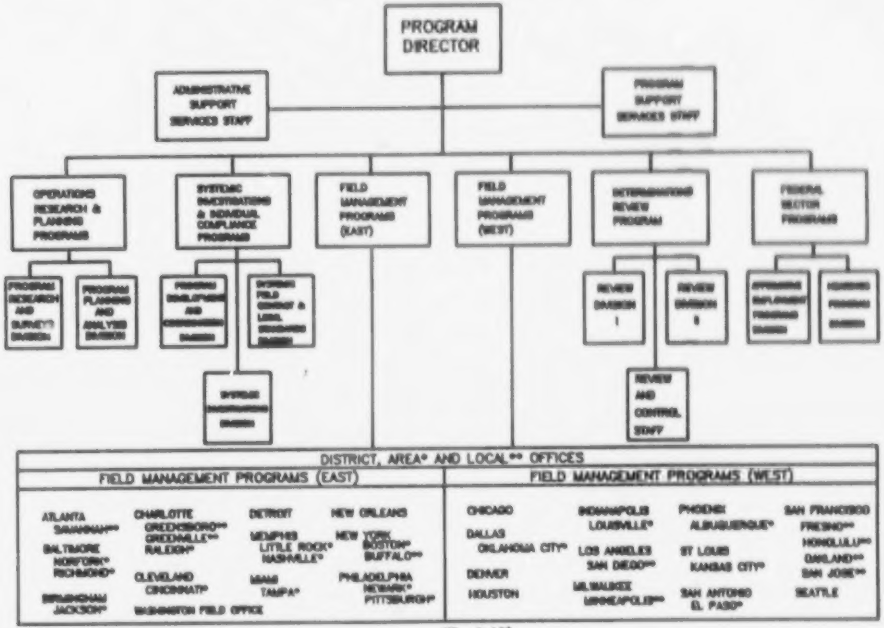


Figure 12
(See Table A.15)

- MONETARY BENEFITS OBTAINED THROUGH COMPLIANCE AND SYSTEMIC ENFORCEMENT ACTIVITIES INCREASED 48 PERCENT BETWEEN FY 1987 AND FY 1988 (Fig.11).
- NEARLY 13,000 PEOPLE BENEFITTED FROM THE $65.8 MILLION DOLLARS OBTAINED THROUGH COMPLIANCE ACTIONS IN FY 1988, A 55 PERCENT INCREASE OVER THOSE BENEFITTING IN FY 1987 (Fig.12).
- $9.7 MILLION DOLLARS WERE SECURED THROUGH SYSTEMIC DISCRIMINATION AWARDS, AN INCREASE OF 264 PERCENT OVER FY 1987 MONETARY BENEFITS (Fig.11).

OFFICE OF PROGRAM OPERATIONS


PROGRAM DIRECTOR
ADMINISTRATIVE SUPPORT SERVICES STAFF
PROGRAM SUPPORT SERVICES STAFF
OPERATIONS RESEARCH & PLANNING PROGRAMS
SYSTEMIC INVESTIGATIONS & INDIVIDUAL COMPLIANCE PROGRAMS
FIELD MANAGEMENT PROGRAMS (EAST)
FIELD MANAGEMENT PROGRAMS (WEST)
DETERMINATIONS REVIEW PROGRAM
FEDERAL SECTOR PROGRAMS
PROGRAM RESEARCH AND SURVEYS DIVISION
PROGRAM PLANNING AND ANALYSIS DIVISION
REVIEW DIVISION I
REVIEW DIVISION II
REVIEW AND CONTROL STAFF
DISTRICT, AREA* AND LOCAL** OFFICES
FIELD MANAGEMENT PROGRAMS (EAST)
ATLANTA
SAVANNAH**
BALTIMORE
NORFOLK*
RICHMOND*
BIRMINGHAM
JACKSON*
CHARLOTTE
GREENSBORO**
GREENVILLE**
RALEIGH*
CLEVELAND
CINCINNATI*
WASHINGTON FIELD OFFICE
DETROIT
MEMPHIS
LITTLE ROCK*
NASHVILLE*
MIAMI
TAMPA*
NEW ORLEANS
NEW YORK
BOSTON*
BUFFALO**
PHILADELPHIA
NEWARK*
PITTSBURGH*
FIELD MANAGEMENT PROGRAMS (WEST)
CHICAGO
DALLAS
OKLAHOMA CITY*
DENVER
HOUSTON
INDIANAPOLIS
LOUISVILLE*
LOS ANGELES
SAN DIEGO**
MILWAUKEE
MINNEAPOLIS**
PHOENIX
ALBUQUERQUE*
ST LOUIS
KANSAS CITY*
SAN ANTONIO
EL PASO*
SAN FRANCISCO
FRESNO**
HONOLULU**
OAKLAND**
SAN JOSE**
SEATTLE

III. OFFICE OF PROGRAM OPERATIONS: AN OVERVIEW

A. ORGANIZATION, MISSION & FUNCTIONS OF COMPONENT PROGRAMS

The Office of Program Operations (OPO) includes the Office of the Director and five program areas structured to enable efficient realization of its goals and objectives. The mission and component functions of each program are provided below.

An organization chart, including the various divisions of each OPO program, is included on page 10.

1. **Office of the Director**-provides overall direction, coordination, leadership and administrative support to the OPO program areas and has supervisory, management and fiscal responsibility for the Office of Program Operations.

2. **Field Management Programs, East and West (FMP)**-ensure effective and efficient operation of field offices through operational oversight and monitoring of program implementation, evaluation of performance, and provision and coordination of administrative services. Headquarters Field Management Programs are divided into East and West geographic regions for effective delivery of services, coordination, and communication of information. The field offices are charged with

- o enforcing the statutory responsibilities of the Commission through investigation, determination and litigation of charges filed; and,
- o achieving timely and appropriate resolution of discrimination cases through the efficient administration and effective implementation of the various case processing systems.

Under Field Management Programs, Districts are comprised of the following: 1) Director, 2) Administrative Staff including Deputy Director, 3) Enforcement Groups including Charge Receipt and Technical Information Staff, Enforcement (General Investigative) Staff, and Systemic Investigative Staff, 4) Legal Staff directed by Regional Attorneys, who are accountable to the General Counsel for management of litigation, 5) Federal Hearings and Affirmative Action Staff, and 6) Area and Local Offices. The Directors of the Area and Local Offices are directly accountable to the District Director.

3. **Systemic Investigations and Individual Compliance Programs** (SIICP)-initiate, refine and recommend charge processing procedures, technical administrative support systems for systemic and individual charge investigation, and develop intermittent instructions which assist field staff in the timely enforcement of Title VII, EPA, and ADEA. SIICP investigate large systemic charges and provide case-by-case technical assistance to District Offices as they accomplish their pattern and practice charge investigative responsibilities. SIICP are also charged with developing, monitoring and implementing the work-sharing relationships of EEOC with the state and local Fair Employment Practices Agencies (FEPAs) and Tribal Employment Rights Organizations (TEROs).

4. **Federal Sector Programs** (FSP)-provide leadership and guidance to Federal agencies on all aspects of the Federal Government's equal employment opportunity program in accordance with the specific laws enforced by EEOC. FSP develop proposed policies and monitor implementation of approved affirmative employment policies and programs designed to ensure hiring, placement and advancement of minorities, women and handicapped individuals in the Federal Government. FSP also have oversight responsibility for Federal agency pre-appellate complaint processing programs, with specific management responsibility at the hearing stage.

5. **Determinations Review Program (DRP)**-reviews, upon requests of charging parties, charge resolutions in which field staff has determined that there is no reasonable cause to believe the charges have merit. DRP's full review of charge investigations is completed by both investigators and attorneys and may sustain the field determination, cause the case to be remanded for further investigation, or cause reversal of the field determination by the Program Director.

6. **Program Research and Surveys Staff (PRSS)**-determines the quantitative information required by OPO and the Commission in planning and carrying out their functions. This staff designs and conducts surveys of employment sectors; develops and maintains the necessary recordkeeping and reporting processes applicable to all employers; analyzes data from employment sectors and from OPO field and Headquarters offices to systematically identify trends in the area of equal employment opportunity and in the Commission's administrative enforcement and policy and program needs.

PRSS was a separate program staff during FY 1988 that was merged with components of the Office of Performance Services in a September Headquarters reorganization. The new program is called the Operations Research and Planning Programs (ORPP). In addition to the functions mentioned above, ORPP also provide long and short range planning systems from which OPO decisions regarding operational plans and goals, resource and staffing determinations, and workload distribution may be made on a national and office-specific basis.

B. FISCAL YEAR 1988 GOALS AND OBJECTIVES

The Office of Program Operations set three program goals and a number of objectives for fiscal year 1988. The three goals are summarized in the following statement and are supported by objectives emphasizing program activities encompassed by each.

TO ENSURE QUALITY, TIMELINESS, AND EFFECTIVENESS IN ALL OFFICE OF PROGRAM OPERATIONS' ACTIVITIES IN SUPPORT OF ADMINISTRATIVE ENFORCEMENT EFFORTS IN BOTH THE FEDERAL AND PRIVATE SECTORS.

SUMMARY OF OBJECTIVES:

1. To implement uniform case management principles and systems for timely identification and resolution of problems and technical assistance for field offices' charge processing activities and Federal hearings process.

2. To develop and implement appropriate review and oversight for identification and correction of problems, improved evaluation of performance and provision of technical assistance for field charge resolution activities and systemic charge processing.

3. To develop data management systems, research activities, and reporting systems to enhance statistical analyses in support of field charge resolution, agencywide charge/complaint processing, Federal complaint processing and affirmative employment programs, and internal headquarters and field management decisions.

4. To develop and communicate policy and procedural guidance for field office compliance in private sector complaint processing and for Federal compliance in complaint processing systems, and in implementation of viable affirmative employment programs.

5. To develop and implement innovative techniques and approaches to enhance enforcement capabilities of state and local Fair Employment Practices Agencies (FEPAs), and Tribal Employment Rights Organizations (TEROs).

6. To implement training activities designed to enhance the general public's knowledge of rights, respondents' knowledge of responsibilities, and FEPA staffs' ability to perform.

7. To improve field/Headquarters communication and coordination.

In February of 1988, the Director of the Office of Program Operations reviewed the goals and objectives set forth in the beginning of the fiscal year and reiterated, more specifically, additional program efforts required to meet those goals and objectives. At that time, benchmarks for performance were set forth, numerically and qualitatively defining selected objectives (see Table 1 on page 14). The most salient elements of that mid-year review focused on the need for OPO Field Management Programs (East and West) to firmly establish quality and timely charge processing, increased productivity, reduction of inventory, and sound administrative enforcement in the field offices. Recommendations were made to increase on-site management reviews and develop and provide office-specific assistance in correcting identified problems.

Field Management Programs Directors were instructed to develop workplans that would facilitate the on-site reviews and ensure a focus on general management activities, office communications, and labor-management relations in addition to a review of open and closed charge investigations and charge processing systems. One important aspect of this process was the review of the methodology used in the development of charge related information and coordination of these activities with administrative and legal staff within the Districts and the Offices of Management and General Counsel at Headquarters. The thorough review of charge processing activities was mandated with clear directions regarding resolution of problem situations that tended to hinder accomplishment of the Agency's enforcement goals.

Objectives to improve data analyses and utilization within OPO were designed to enhance charge processing activity, enhance utility of research in both Federal and Private sectors, and to enable comparative trend studies for special reporting projects. Other data concerns centered on field oversight of responsibilities and the need to increase the accuracy of charge processing data, submitted intermittently by field offices, for assessment of program performance.

Other objectives focused on the development of cases for litigation at the level of Agency acceptability, including improved coordination with the Office of the General Counsel.

TABLE 1

OFFICE OF PROGRAM OPERATIONS
SELECTED PERFORMANCE INDICATORS

SELECTED OPO OBJECTIVES	*ACTUAL OPO PERFORMANCE*		
	1987	*1988*	*%CHANGE*
1. Reduction of Agency-wide pending inventory by 10 %	61,686	53,780	-12.8%
2. Reduction in charge workload to approximately 55 per assigned investigator	75	57	-24.0%
3. Increase in the number of quality litigation cases developed and recommended to the Commission	557	764	+37.2%
4. Increase in hearings productivity (closures)	5,047	6,227	+23.3%
5. Reduction in the average processing days to resolve charges*	280	326	+16.4

* During the first quarter, OPO removed Average Processing Time as a separately monitored performance indicator in order that field staff could place more emphasis on resolving "aged cases" (those in the inventory for 270 or more days). Therefore, the average processing time increased by 46 days.

IV. FISCAL YEAR 1988 ACCOMPLISHMENTS

The Office of Program Operations made great strides in the Agency's enforcement activities during fiscal year 1988. Most of the program objectives of the Headquarters and field components were met or exceeded during the period. Establishment of quality as a constant investigative objective, measurable reduction of pending inventories, productivity at expected levels, consistent managerial attention to resolution of aged cases, and reduction of the time required to reach decision in Federal hearings are goals to which the Agency has aspired for several years and which continue to represent the focus of managerial attention. The levels reached in these areas during FY 1988 make OPO look forward to FY 1989 with increased anticipation of continued progress toward mission accomplishment.

In FY 1988, OPO was required to monitor and track charges received based on the new Immigration Reform and Control Act (IRCA) and take various research, investigative, and reporting actions in response to the Age Discrimination Claims Assistance Act (ADCAA). These activities substantially increased OPO's workload and staff played a key role in ensuring complete and timely notification of rights to claimants and tracking and resolution of related charges.

Two new Local Offices were added to Field Management Programs in 1988, Savannah (Atlanta District) and Honolulu (San Francisco District). The El Paso, Texas office was upgraded from a Local to an Area office and it became a part of the San Antonio, rather than the Dallas, District Office.

During 1988, requisite Case Development Training was initiated and provided to several of the field offices. This training was designed to reinforce ways in which managers and supervisors can ensure that EEOC investigations meet the highest standard of quality. The philosophy conveyed in the course places increased emphasis on the affirmative role of supervisors and management in the management and development of cases. The training stresses that all levels of supervisors and managers must be actively involved in caseload planning and prioritization, as well as the development of the investigation, i.e., reading files as they are being developed and identifying substantive, procedural, or time/management problems in the investigative process. Most of the field offices received this training in FY 1988. The remainder will receive their training in the first quarter of FY 1989.

Automation of all offices within OPO is an ongoing objective. The Charge Data System (CDS), a Commission initiative in 1986, became fully operational at the local level, providing for computerized management information systems in the field offices that enable staff to manage and access their own data. These efforts were also extended to the sixty-eight Fair Employment Practices Agencies that have the largest charge workloads. All equipment and software have been installed. Each office is provided the flexibility of developing additional software to aid in the overall database management effort. Districts completed hard inventory of active charges during the year in order to ensure a higher degree of accuracy of charge data entered into the CDS. CDS will enable OPO to fully integrate information on field and state and local enforcement activities.

A. FIELD MANAGEMENT PROGRAMS

Field Management Programs (East and West) are responsible for managerial oversight of all field activities. Data reported from the field offices at the end of each quarter, as well as other periodic reports, are analyzed by FMP to determine the extent to which overall goals and objectives are being met.

In fiscal year 1988, EEOC received 58,853 charges to process, a reduction of 5 percent from FY 1987. Of that number, almost 73 percent were filed under Title VII, while one-fourth were filed under The Age Discrimination in Employment Act. The remaining two percent of receipts to process were charging violations under the Equal Pay Act or were mixed charges.

Productivity increased substantially in FY 1988 with the number of resolutions up 32 percent over FY 1987. Closures were higher than in any other fiscal year under review in this annual report. Concomitantly, pending inventory decreased by nearly thirteen percent (or 7,900 charges) between FY 1987 and FY 1988. (See Figure 13.) Overall, resolutions made per investigator were up almost three percent. EEOC investigators resolved 80.4 cases on the average in FY 1988, up from 78.4 in 1987 (see Table A.10).

In FY 1988, FEPAs closed approximately 40,000 Title VII charges and 5,000 ADEA charges. The FEPAs were responsible for processing nearly half of the charges/complaints filed by individuals under the statutes enforced by EEOC. FEPAs received just over 59,000 complaints to process in FY 1988, an increase of 10.5 percent over FY 1987. (See Figure 14.)

Of the more than 45,000 FEPA closures, 11 percent were under ADEA and the remaining 89 percent were Title VII. Approximately 50 percent of closures for either ADEA or Title VII were no reasonable cause closures. Nearly thirty percent were settlements or successful conciliations.

Monetary benefits gained through both systemic and compliance activities in FY 1988 increased by 48 percent over FY 1987. FY 1988 compliance benefits increased by 36 percent over FY 1987, with a corresponding increase of 55 percent in the number of people benefitting from the actions. (See Figure 15.)

Non-monetary benefits also increased. Non-monetary benefits may include changes in the mode and geographic area of company recruitment efforts, implementation of training programs, changes in promotion procedures for employees, provision of educational and business opportunities (e.g. developing joint programs with public school systems to stimulate interest and careers of female and minority youth and collegians in technical fields), more use of minority businesses and suppliers, expansion of apprenticeship and training programs, and diversity training for current company managers and supervisors.

The total number of merit resolutions increased by 31 percent between FY 1987 and FY 1988, an increase of approximately 2500 resolutions. Merit resolutions are settlements, withdrawals with benefits, successful conciliations, and unsuccessful conciliations (that are forwarded to the Commission as litigation recommendations).

The number of *reasonable* cause resolutions increased substantially from 1,412 in FY 1987 to 1,938 in FY 1988, a *thirty-seven* percent increase. Field staff found no reasonable cause in 49.7 percent of the FY 1988 resolutions, as compared with 55.3 percent of resolutions in FY 1987. (See Figure 16.)

The number of "aged" cases in the pending inventory declined by four percent between FY 1987 and FY 1988. This occurred even though the benchmark for measurement was changed. In FY 1987, "aged" cases were defined as cases which were 300 or more days old, as compared with the standard of 270 or more days old in FY 1988.

The field offices provided technical assistance and education programs to area employers, including 101 voluntary assistance program (VAP) presentations which instructed 6,337 individuals (representing 2,398 employers) of their rights and responsibilities under the statutes.

In FY 1988, enforcement activities resulted in 764 litigation recommendations forwarded to the Office of General Counsel (OGC). According to preliminary data from OGC, a total of 482 recommendations was approved, an 11 percent increase over approvals in FY 1987. A record 554 suits were filed, including 115 subpoena enforcement actions. Sixty-nine percent of the direct suits and interventions, filed by the Commission, were for Title VII violations and twenty-four percent were for ADEA violations. (Note: suits filed during a given year may include some which have been approved in prior fiscal years.)

FMP emphasized uniform case management initiatives in the field offices. These efforts included the nationwide implementation of standardized computer programs and reports and training of field supervisory staff in utilizing these reports to monitor case management. Additional ongoing training, begun in FY 1988, focused on the importance of the role and participation of supervisory staff throughout the investigatory process. These training programs were central to the field's case management results attained in FY 1988, including reduction in inventories, improvement in the quality of charge processing and case tracking, and general enhancement of charge processing operations.

Frequent meetings between FMP and the Field Contact Division of Systemic and Individual Compliance Programs (SIICP) were held to (1) discuss meaningful goals and progress on systemic case investigations, (2) determine an organized approach to the effort, (3) collaborate on case processing, and (4) provide headquarters input and guidance during the field's systemic investigatory process. This coordinated approach provided timely input to field offices' charge processing which translated into improved quality and quantity of systemic charge processing.

On-site quality reviews were conducted by FMP staff in most of the field offices during FY 1988. In prior years, much time was spent in reviewing case files to ensure consistency in applying standard investigative procedures. In FY 1988, these visits also entailed a review of the quality of case processing, from charge receipt to case closure. FMP guidance was provided when efficiency problems were discovered.

B. SYSTEMIC INVESTIGATIONS AND INDIVIDUAL COMPLIANCE PROGRAMS

Systemic Investigations and Individual Compliance Programs (SIICP) are responsible for identifying and investigating large pattern and practice discrimination cases and providing technical guidance to the field concerning pattern and practice and limited scope Commissioner charges prior to presentation to the Commissioners for approval.

The Commission approved various actions in 51 systemic cases in FY 1988, compared with 30 in FY 1987, an increase of 70 percent. (See Figure 17.) Further, of those 51 case actions approved, 19 or 37 percent were final decisions on the merits of the case (as compared with 10 such decisions in FY 1987), 7 were withdrawals, 9 were settlements, and 5 were conciliations. Eleven new charges were initiated since March of 1988, while over 100 pattern and practice charges were in the investigative process at fiscal year's end.

Of the forty-four case actions (less withdrawals), 57 percent were in cases filed by Commissioners who have served since 1982. Therefore, timely administrative enforcement of the statutes, in a quality manner, is becoming a planned reality. FY 1988 was the first year that any systemic charge was fully investigated and decided during the tenure of the Commissioner who filed the charge.

A total of $9,617,935 was secured for affected individuals in FY 1988 systemic back-pay and other awards, an increase of 264 percent over the monetary benefits of $2,639,300 gained in FY 1987. (See Figure 18.) The field's positive approach in investigating systemic matters resulted in increased quality in all aspects of this process.

SIICP also completed liaison activities with the Department of Justice in the provision of innovative and effective techniques for problem solving in the TERO case management training sessions. Justice participated in the training to explain the government-wide effort to eliminate discrimination against Indians. A record number of representatives from fifty-eight tribes attended these sessions.

SIICP conducted the annual conference for Fair Employment Practices Agencies jointly with the U.S. Department of Housing and Urban Development. This conference enabled FEPA representatives to gain a more complete perspective of Federal anti-discrimination efforts and was the first successful joint effort in this program area.

PENDING INVENTORY AND TOTAL RESOLUTIONS

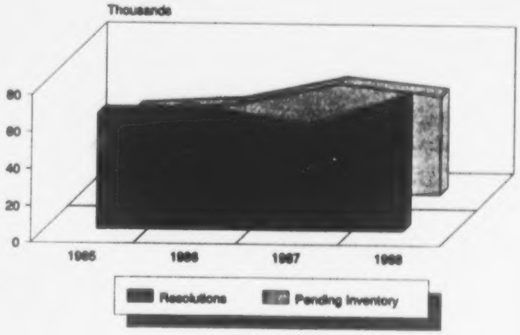


Figure 13

(See Table A.6)

EEOC/FEPA RECEIPTS TO PROCESS

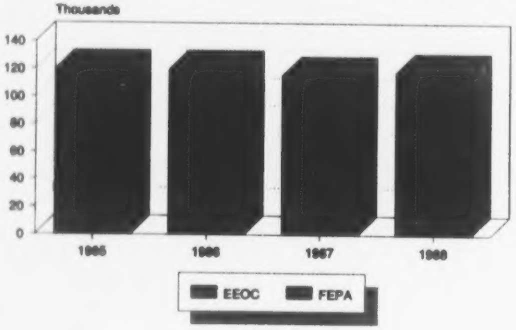


Figure 14

(See Table A.1)

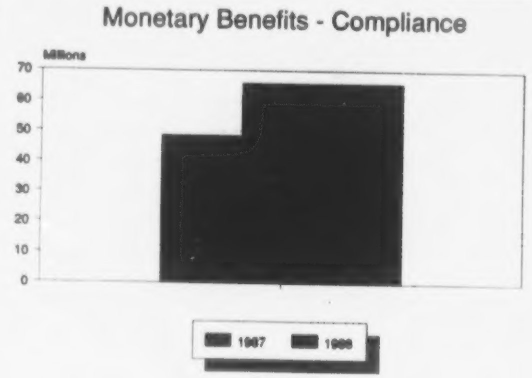


Figure 15

(See Table A.14)

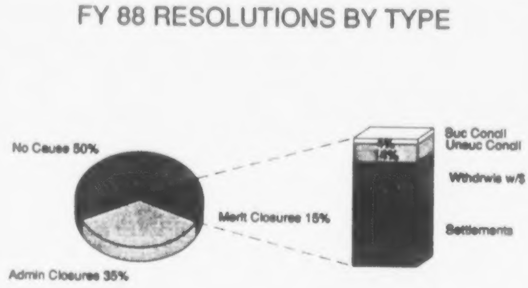


Figure 16

(See Tables A.3 & A.4)

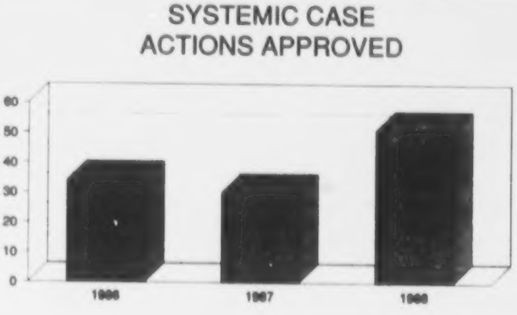


Figure 17

(See Table A.11)

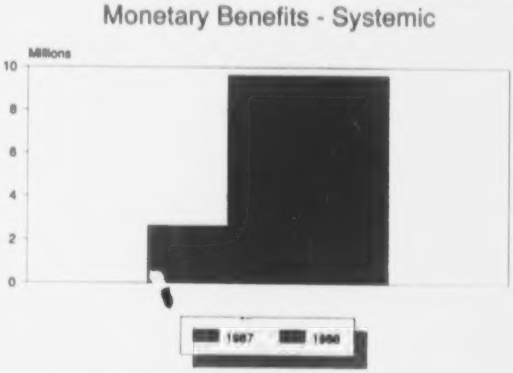


Figure 18

(See Table A.14)

C. FEDERAL SECTOR PROGRAMS

Federal Sector Programs (FSP) staff is responsible for providing the necessary guidance and instruction to EEOC field staff who hold Federal complaint hearings nationwide. Twenty-three percent more cases were closed through the FSP hearings process in FY 1988 than in 1987, resulting in a thirty-three percent reduction of pending inventory (a difference of nearly 1300 cases). (See Figure 19.)

Of the federal sector cases resolved through hearings in FY 1988, 98 percent were individual complaints, including 36 percent (2,222) which were recommended decisions, 30 percent settlements, 17 percent remanded to the agencies, and 15 percent withdrawn by the complainants. The remaining 2 percent were class action complaints.

The average processing time to reach a recommended decision was 100 days. An average of 82 closures per administrative judge in FY 1988 represented an increase of 12 percent over the prior year's figure of 73. (See Figure 20.)

Bench decisions, enabling the administrative judge to make a decision directly after the hearing, became a reality in FY 1988. This allowed the hearing transcript to become the hearing decision, eliminating additional processing time, after the hearing, during which previous decisions had been written.

FSP responded to approximately 8,200 telephone and written inquiries during the 1988 fiscal year. Of these, 30 percent were related to the Affirmative Employment Programs while 70 percent sought information regarding the Federal complaint system.

Commission approval was obtained for the following management directives:

o MD-713-"Affirmative Action for Hiring, Placement, and Advancement of Individuals with Handicaps";

o MD-714-"Instructions for the Development and Submission of Federal Affirmative Employment Multi-Year Program Plans, Annual Accomplishment Reports, and Annual Plan Updates for FY 1988 through FY 1992"; and,

o MD-107-"Federal Sector Complaints Processing Manual".

MD-712 was revised to provide guidance to agencies on conducting their internal program for individuals with handicaps.

The revisions to 29 CFR 1613 became effective this fiscal year. These revisions provided for more effective remedies in the Federal complaint system through addition of the Commissioner's expanded remedies policy. This policy adds preventive and curative relief, including the posting of notices when discrimination is found, to the Commission's previous relief definition which only provided for corrective relief as full remedy.

In FY 1988, FSP revised the mechanism to collect complaints processing data from Federal agencies. This was the first revision of this data collection method in ten years. Additional efforts enabled FSP to computerize complaints processing reports submitted by Federal agencies and conduct more definitive analyses of the data.

According to data reported to OFO's Federal Sectors Program staff during FY 1988, the FY 1987 complaints filed with Federal agencies were down 12.3 percent over FY 1986. There was a corresponding decrease of 4.3 percent in pending inventory. Federal agency closures were down 5.3 percent over 1986 figures.

Feedback on MD 714 indicates positive responses to the flexibility given to agencies to focus on affirmative issues. It is expected that much attention will be paid to internal progression of employees and identification of existing barriers that impede the advancement of selected groups during FY 1989.

Staff guides, covering MD-712, 713, and 714, were issued for the evaluation and coordination of Federal affirmative employment programs for minorities, women, and individuals with handicaps. A number of agencies were reviewed to determine the extent to which requirements set forth in MD-712 were being met.

D. DETERMINATIONS REVIEW PROGRAM

The Determinations Review Program (DRP) allows charging parties/complainants to request a Headquarters' review of "no reasonable cause" determinations issued by EEOC field offices. DRP became operational in August 1987. In FY 1988, it received 8,604 determinations for review or twenty-five percent of the "no-cause" determinations issued by EEOC District directors in FY 1988. During FY 1988, DRP reviewed 5,559 field determinations. Sixty-two percent of the review requests were filed under Title VII, followed by 36 percent for ADEA, and 2 percent which included EPA and those with three or more concurrent charges.

A total of 5,495 inventory items were closed. (See Figure 21.) Eighty-eight percent were closed by decision (based upon review) and 12 percent were closed administratively, including withdrawals, rejections, field office reevaluations, suits filed, or settlements.

Approximately 99 percent of the cases decided by DRP in FY 1988 sustained the field's "no reasonable cause" determinations. Approximately five percent of the total charges reviewed (or 235) were remanded to the field offices for additional investigation. In addition, in some cases that were remanded, the Districts reversed their original determination or settled the case without further DRP review.

E. PROGRAM RESEARCH AND SURVEYS STAFF

In FY 1988, the Program Research and Surveys Staff (PRSS) completed five major research reports using data collected through the surveys conducted by this office. Two major publications were produced, based on the Commission's survey data, and provide information on job patterns for minorities and women in private industry and state and local governments.

PRSS also was given responsibility for developing the OPO-wide Data Management System, in support of programmatic efforts. Through this effort, OPO was able to generate a number of responses to requests from the Congress and staff related to ADEA enforcement. Full completion of the OPO Data Management System during 1989 will allow EEOC to merge internal charge data, EEOC survey data, and external data bases to conduct relevant EEO research analyses and comparisons.

Ten individual industry analyses were conducted by PRSS in FY1988 for use by District or Headquarters Offices to assist in specific case investigative activities. This provided a successful means by which an office could establish more viable methods of identifying industrial employment problems of a systemic nature.

During FY 1988, PRSS also responded to inquiries for information from sources external to EEOC. Requests for information from the various employment surveys totalled 1,311, up from 1,100 in FY 1987, with a corresponding generation of 23,000 reports in response to these requests. Large volumes of data (either in hardcopy or tape format) were provided to the four federal agencies that are routine users of these data. In addition, over 30,000 private employer reports were provided to FEPAs.

This staff has now become a part of the larger OPO Operations Research and Planning Programs, resulting from a reorganization at the end of the 1988 fiscal year.

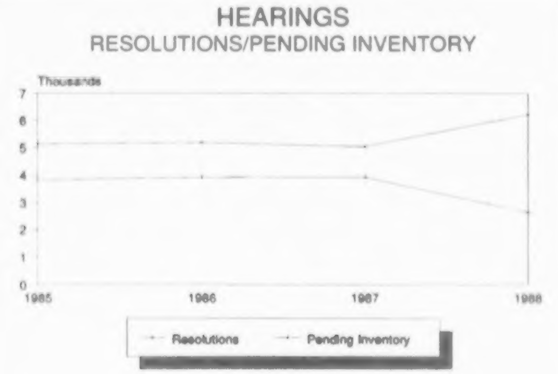


Figure 19

(See Table A.15)

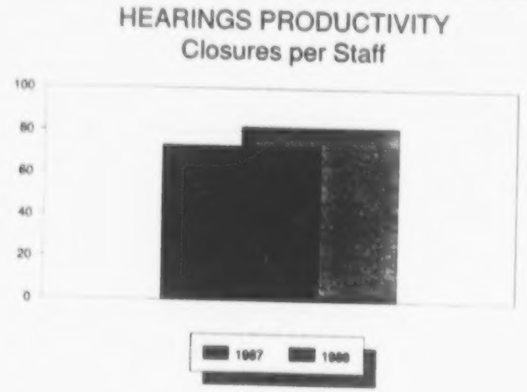


Figure 20
(See Table A.17)

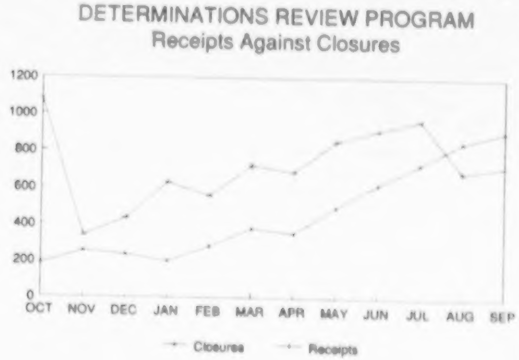


Figure 21

(See Table A.9)

APPENDIX TABLES

A.1 EEOC/FEPA RECEIPTS TO PROCESS

INDICATOR	FY 85	% CHANGE FY 84-85	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87	FY 88	% CHANGE FY 87-88
TOTAL RECEIPTS TO PROCESS	119,695	3.5%	119,584	-0.1%	115,536	-3.4%	117,936	2.1%
EEOC RECEIPTS TO PROCESS	67,119	1.3%	65,783	-2.0%	62,074	-5.6%	58,853	-5.2%
FEPA RECEIPTS TO PROCESS	52,576	6.6%	53,801	2.3%	53,462	-0.6%	59,083	10.5%
	% TOTAL		% TOTAL		% TOTAL		% TOTAL	
% EEOC RECPTS TO PROCESS	56.1%		55.0%		53.7%		49.9%	
% FEPA RECPTS TO PROCESS	43.9%		45.0%		46.3%		50.1%	
TOTAL	100.0%		100.0%		100.0%		100.0%	

A.2 EEOC RECEIPTS TO PROCESS BY STATUTE

INDICATOR	FY 85	% TOTAL	FY 86	% TOTAL	FY 87*	% TOTAL	FY 88*	% TOTAL
TOTAL RECEIPTS/ RECEIPTS TO PROCESS	72,002	100.0%	68,822	100.0%	62,074	100.0%	58,853	100.0%
TITLE VII	53,343	74.1%	50,110	72.8%	45,401	73.1%	42,657	72.5%
ADEA	16,784	23.3%	17,443	25.3%	15,121	24.4%	14,882	25.3%
EPA	1,701	2.4%	1,157	1.7%	1,267	2.0%	1,155	2.0%
OTHER	174	0.3%	112	0.2%	285	0.6%	159	0.4%

* In FY 87 and 88, receipts by statute were compiled based on receipts to process instead of total receipts.

A.3 MERIT RESOLUTIONS BY TYPE

INDICATOR	FY 85	% CHANGE FY 84-85	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87	FY 88	% CHANGE FY 87-88
TOTAL RESOLUTIONS	62,494	13.6%	62,203	-0.5%	53,482	-14.0%	70,749	32.3%
TOTAL MERIT RESOLUTIONS	10,935	-19.5%	9,613	-12.1%	8,114	-15.6%	10,641	31.1%
SETTLEMENTS*	5,724	-21.6%	4,601	-19.6%	3,715	-19.3%	4,750	27.9%
WITHDRAWALS WITH BENEFITS*	3,258	-21.6%	3,149	-3.3%	2,987	-5.1%	3,953	32.3%
CAUSE-- UNSUCC CONCIL	1,621	1.1%	1,368	-15.6%	1,036	-24.3%	1,512	45.9%
SUCCESS CONCIL	332	-36.8%	495	49.1%	376	-24.0%	426	13.3%
	% TOTAL		% TOTAL		% TOTAL		% TOTAL	
%TOTAL MERIT RESOLUTIONS	17.5%		15.5%		15.2%		15.0%	
% SETTLEMENTS	52.3%		47.9%		45.8%		44.6%	
% WITHDRAWLS W/BENEFITS	29.8%		32.8%		36.8%		37.1%	
CAUSE- % UNSUCC CONCIL	14.8%		14.2%		12.8%		14.2%	
% SUCCESS CONCIL	3.0%		5.1%		4.6%		4.0%	
TOTAL	100.0%		100.0%		100.0%		100.0%	

* For FY 84, Settlements and Withdrawals with Benefits were not reported as separate indicators. The percentage changes for FY 84-85 are based on extrapolations from FY 85 reported data.

A.4 RESOLUTIONS BY TYPE

INDICATOR	FY 85	% CHANGE FY 84-85	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87	FY 88	% CHANGE FY 87-88
TOTAL RESOLUTIONS*	62,494	15.6%	62,203	-0.5%	53,482	-14.0%	70,749	32.3%
MERIT RESOLUTIONS	10,935	-19.5%	9,613	-12.1%	8,114	-15.6%	10,641	31.1%
- SETTLEMENTS**	5,724	-21.6%	4,601	-19.6%	3,715	-19.3%	4,750	27.9%
- WITHDRWLS W/BENEFITS**	3,258	-21.6%	3,149	-3.3%	2,987	-5.1%	3,953	32.3%
- CAUSE UNSUCC CONCIL	1,621	1.1%	1,368	-15.6%	1,036	-24.3%	1,512	45.9%
SUCCESS CONCIL	332	-36.8%	495	49.1%	376	-24.0%	426	13.3%
NO CAUSE	35,138	36.9%	37,014	5.3%	29,578	-20.1%	35,148	18.8%
ADMINISTRATIVE CLOSURES	16,421	4.1%	15,576	-5.1%	15,790	1.4%	24,960	58.1%
	% TOTAL		% TOTAL		% TOTAL		% TOTAL	
% MERIT RESOLUTIONS	17.5%		15.5%		15.2%		15.0%	
- % SETTLEMENTS	9.2%		7.4%		6.9%		6.7%	
- % WITHDRWLS W/BENEFITS	5.2%		5.1%		5.6%		5.6%	
- CAUSE % UNSUCC CONCIL	2.6%		2.2%		1.9%		2.1%	
% SUCCESS CONCIL	0.5%		0.8%		0.7%		0.6%	
% NO CAUSE	56.2%		59.5%		55.3%		49.7%	
% ADMINISTRATIVE CLOSURES	26.3%		25.0%		29.5%		35.3%	
TOTAL	100.0%		100.0%		100.0%		100.0%	

* Total resolutions include only those charges closed in enforcement units in FY 85 and 86 and in 3 quarters of FY 87. A small number of charges were closed in intake which raised the closure totals to the following: FY 85 - 63,569; FY 86 - 63,446; FY 87 - 54,276.

** For FY 84, Settlements and Withdrawals with Benefits were not reported as separate indicators. The percentage changes for FY 84-85 are based on extrapolations from FY 85 reported data.

A.5 EEOC RESOLUTIONS BY STATUTE

INDICATOR	FY 85	% TOTAL	FY 86	% TOTAL	FY 87	% TOTAL	FY 88	% TOTAL
TOTAL RESOLUTIONS	62,494	100.0%	62,203	100.0%	53,482	100.0%	70,749	100.0%
TITLE VII	46,436	74.3%	45,506	73.2%	37,691	70.5%	49,695	70.2%
ADEA	14,437	23.1%	14,933	24.0%	14,530	27.2%	19,427	27.5%
EPA	1,516	2.4%	1,630	2.6%	1,122	2.1%	1,466	2.1%
OTHER	105	0.2%	134	0.2%	139	0.3%	161	0.2%

A.6 EEOC COMPLIANCE RECEIPTS TO PROCESS, RESOLUTIONS, PENDING INVENTORY

INDICATOR	FY 85	% CHANGE FY 84-85	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87	FY 88	% CHANGE FY 87-88
RECEIPTS TO PROCESS	67,119	1.3%	65,783	-2.0%	62,074	-5.6%	58,853	-5.2%
TOTAL RESOLUTIONS	62,494	15.6%	62,203	-0.5%	53,482	-14.0%	70,749	32.3%
PENDING INVENTORY*	44,918	12.6%	47,735	6.3%	59,575	24.8%	53,780	-9.7%

* Prior to FY 88, pending inventory excludes charges pending in intake units. Pending inventory including charges in intake is as follows: FY 85 - 46,741; FY 86 - 50,767; FY 87 - 61,686. During FY 88, intake functions were performed by enforcement units. FY 88 pending inventory reflects total pending charges. (FY 88 pending end is adjusted to reflect the results of a physical inventory of all charges.)

A.7 FY 1988 RESOLUTIONS BY TYPE

TYPE		NUMBER	% TOTAL
TOTAL RESOLUTIONS		70,769	100.0%
SETTLEMENTS		4,750	6.7%
WITHDRWLS W/BENEFITS		3,953	5.6%
CAUSE--	SUCCESS CONCIL	426	0.6%
	UNSUCCESS CONCIL	1,512	2.1%
NO CAUSE		35,148	49.7%
ADMINISTRATIVE CLOSURES		24,980	35.3%

(For comparison to previous years, see Table A.4)

A.8 DETERMINATIONS ON THE MERITS

INDICATOR	FY 85	% CHANGE FY 84-85	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87	FY 88	% CHANGE FY 87-88
TOTAL DETERM ON MERITS	37,091	33.4%	38,877	4.8%	30,990	-20.3%	37,086	19.7%
CAUSE	1,953	-8.2%	1,863	-4.6%	1,412	-24.2%	1,938	37.3%
NO CAUSE	35,138	36.9%	37,014	5.3%	29,578	-20.1%	35,148	18.8%

A.9 DETERMINATIONS REVIEW PROGRAM, FY 1988 RECEIPTS AND CLOSURES

INDICATOR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
RECEIPTS	1,081	538	434	631	599	724	680	855	914	970	689	721	8,604
CLOSURES	102	254	234	199	281	380	334	498	621	731	850	911	5,495

A.10 INVESTIGATOR PRODUCTIVITY

INDICATOR	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87	FY 88	% CHANGE FY 87-88
RESOLUTIONS PER INVESTIGATOR	86.3	2.0%	78.4	-9.2%	80.4	2.6%

A.11 SYSTEMIC CASE ACTIONS

INDICATOR	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87	*FY 88	% CHANGE FY 87-88
TOTAL ACTIONS	34	NA	30	-11.8%	51	70.0%

* FY 88 total includes limited scope Commissioner charges.

A.12 LITIGATION RECOMMENDATIONS, LITIGATION AUTHORIZED, SUITS FILED

INDICATOR	FY 85	% CHANGE FY 84-85	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87	FY 88	% CHANGE FY 87-88
LITIGATION RECOMMENDATIONS	708	156.5%	701	-1.0%	557	-20.5%	764	37.2%
LITIGATION AUTHORIZED	277	35.0%	440	58.8%	436	-0.9%	482	10.6%
SUITS FILED	411	32.6%	526	28.0%	527	0.2%	554	5.1%

A.13 COMPLIANCE MONETARY BENEFITS AND TOTAL PEOPLE BENEFITTED

INDICATOR	FY 85	% CHANGE FY 84-85	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87	FY 88	% CHANGE FY 87-88
TOTAL MONETARY BENEFITS	$82,238,192	-23.2%	$53,840,160	-34.5%	$48,429,915	-10.0%	$65,783,319	35.8%
PEOPLE BENEFITTED	30,906	20.9%	24,448	-20.9%	8,320	-66.0%	12,919	55.3%

A.14 TOTAL MONETARY BENEFITS

INDICATOR	FY 87	% CHANGE FY 86-87	FY 88	% CHANGE FY 87-88
TOTAL MONETARY BENEFITS	$51,080,213	-6.0%	$75,601,294	47.6%
COMPLAINANTS	$48,429,913	-10.0%	$65,783,339	35.8%
SYSTEMIC	$2,650,300	405.5%	$9,817,955	270.4%

A.15 HEARINGS RECEIPTS, RESOLUTIONS, PENDING INVENTORY

INDICATOR	FY 85	% CHANGE FY 84-85	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87	FY 88	% CHANGE FY 87-88
RECEIPTS	5,123	2.6%	5,250	2.4%	5,043	-4.1%	5,278	4.6%
RESOLUTIONS	5,135	4.2%	5,189	1.1%	5,047	-2.7%	6,227	23.4%
INVENTORY	3,832	0.6%	3,917	2.2%	3,929	0.3%	2,651	-32.5%

A.16 HEARINGS ANNUAL RESOLUTIONS BY TYPE

RESOLUTION TYPES	FY 85	% TOTAL	FY 86	% TOTAL	FY 87	% TOTAL	FY 88	% TOTAL
TOTAL RESOLUTIONS	5,135	100.0%	5,189	100.0%	5,047	100.0%	6,227	100.0%
RECOMMENDED DECISIONS	1,876	36.5%	1,916	36.9%	1,707	33.8%	2,222	35.7%
SETTLEMENTS	1,551	30.2%	1,423	27.4%	1,453	28.8%	1,885	30.3%
WITHDRAWALS	751	14.6%	742	14.3%	795	15.8%	926	14.9%
REMANDS	843	16.4%	1,016	19.6%	1,008	20.0%	1,052	16.9%
CLASS	116	2.3%	94	1.8%	84	1.7%	142	2.3%

A.17 HEARINGS PRODUCTIVITY

INDICATOR	FY 85	% CHANGE FY 84-85	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87	FY 88	% CHANGE FY 87-88
RESOLUTIONS PER ADMINISTRATIVE JUDGE	69.4	-3.6%	71.1	2.4%	73.0	2.7%	82.0	12.3%

A.18 FEDERAL COMPLAINTS RECEIPTS, RESOLUTIONS, PENDING INVENTORY

INDICATOR	FY 85	% CHANGE FY 84-85	FY 86	% CHANGE FY 85-86	FY 87	% CHANGE FY 86-87
RECEIPTS	19,386	0.2%	18,167	-6.3%	15,931	-12.3%
CLOSURES	18,337	7.6%	17,962	-2.0%	17,016	-5.3%
PENDING	19,051	9.7%	19,030	-0.1%	18,221	-4.3%

A.19 FEDERAL COMPLAINTS RESOLUTIONS BY TYPE

INDICATOR	FY 85	% TOTAL	FY 86	% TOTAL	FY 87	% TOTAL
TOTAL RESOLUTIONS	18,337	100.0%	17,962	100.0%	17,016	100.0%
REJECTIONS	2,494	13.6%	2,572	14.3%	2,668	15.7%
CANCELLATIONS	1,619	8.8%	1,701	9.5%	1,575	9.3%
WITHDRAWALS	3,431	18.7%	3,057	17.0%	3,519	20.7%
SETTLEMENTS	5,747	31.3%	5,456	30.4%	4,828	28.4%
AGENCY DECISIONS	5,046	27.5%	5,176	28.8%	4,426	26.0%

ITEM 19. FEDERAL COMMUNICATIONS COMMISSION

DECEMBER 21, 1989.

DEAR CHAIRMAN PRYOR: We are pleased to respond to your letter of October 11, 1989, requesting information on those activities of the Federal Communications Commission during fiscal year 1989 that affect the elderly, either directly or indirectly.

A summary of Federal Communications Commission activities affecting the elderly is enclosed. We hope that this information will be useful to you and your staff and can be incorporated into the report of the Special Committee on Aging entitled *Developments in Aging*.

During the past several years, in addition, the Commission has participated in legislative efforts and rulemaking proceedings designed specifically to help the handicapped, which include the deaf and hearing impaired, the blind, and the physically disabled. A significant proportion of people age 65 or older fall into these categories. Our efforts to address the telecommunications needs of the handicapped are thus also a matter of interest to the elderly community.

The Federal Communications Commission will continue to be cognizant of the needs of the handicapped and attentive to telecommunications matters which affect the lives of the elderly as we fulfill our mission to serve all Americans in the public interest.

Sincerely,

ALFRED C. SIKES,
Chairman.

Enclosures.

SUMMARY OF FEDERAL COMMUNICATIONS COMMISSION ACTIVITIES AFFECTING THE ELDERLY

One of the FCC's basic goals has been to protect universal telephone service while promoting economically efficient use of the telephone network and preventing unjust discrimination among the Nation's telephone users. We believe great progress has been made this year to encourage universal telephone service at reasonable rates.

The FCC has taken several steps in the subscriber line charge proceeding, based on the recommendations of an advisory group of Federal and State regulators, to assist low and fixed income telephone subscribers. These measures include high cost assistance designed to keep local exchange rates lower than they otherwise would be in certain parts of the Nation.

The Commission also has implemented a Federal lifeline program to reduce telephone charges for low income subscribers. Under this program, local telephone companies are able to waive the subscriber line charge for low income subscribers qualifying under specified State assistance programs when the State makes an equal monetary contribution to reduce local exchange rates for these customers. Based on the current $3.50 subscriber line charge, qualifying subscribers can receive up to a total of $7 per month in assistance for qualifying.

On April 16, 1987 the Commission also introduced a connection assistance program called "Link-Up America," which provides a discount of 50 percent—up to $30—for connection charges to low income households seeking telephone service. The FCC estimates that approximately 3 million low income households, including many elderly, will be eligible for assistance under the program. In addition, telephone companies are encouraged to offer interest free deferred payment schedules on the remaining balance and, where appropriate, to reduce or to waive any deposit that may be required.

Both the lifeline and high cost assistance programs are funded through usage-based charges paid by the long distance companies. To date, 27 States and the District of Columbia have federally approved lifeline programs, and 39 States, the District of Columbia and Puerto Rico have federally approved connection assistance programs. Most of the Bell Telephone companies also offer budget rate measured service with a very low flat monthly charge for basic service with additional usage-based charges.

Further, as a result of the Commission's subscriber line charge program and other actions, direct dial interstate toll rates have dropped approximately 40 percent since May 1984. A January 1989 study by Southwestern Bell further demonstrates the value of these rate reductions to the elderly. The study shows that senior citizens have increased their long distance usage 92.6 percent since 1983 (before SLCs were in effect). This is well above the average residential subscribers usage increase of 72.2 percent.

In addition, the Commission's Industry Analysis Division continues to monitor telephone penetration rates for the elderly as well as other segments of the population. Census Bureau data collected at the request of the FCC show that telephone subscribership has increased or remained stable since divestiture, even in the case of the unemployed and those with extremely low income levels. In fact, the Census Bureau data for July 1989 (the most recent information currently available) show that 93.8 percent of American households have telephone service in their homes compared to 91.4 percent in November 1983, just prior to divestiture.

The elderly in all income brackets have telephone subscribership levels that are significantly higher than those for households headed by younger people. The July 1989 census data indicated that 95.3 percent of households headed by a person between 60 and 64 years of age had a telephone at home compared to 93.8 percent subscribership level of all households. Based on the July 1989 census data, 96.1 percent of households headed by someone between the ages of 65 and 69 subscribed to telephone service, while households headed by someone from 70 to 99 years of age had a subscribership rate of 96.5 percent. Subscribership levels for these groups have increased or remained stable since divestiture.

The Commission also has been working with Congress and the Administration to monitor or implement legislation to ensure that hearing impaired persons, including the elderly, have reasonable access to the telephone network.

The Telecommunications for the Disabled Act of 1982, 47 U.S.C. 610, passed January 3, 1983, permits carriers to provide specialized customer premises equipment (CPE) to disabled persons under tariff or through other means authorized by State commissions. (The Act contemplates State enforcement of Commission rules regarding placement of specialized telephone equipment.)

Further, the President signed the Hearing Aid Compatibility Act of 1988, Public Law 100-394, on August 17, 1988. This law requires most telephones manufactured in or imported into the United States more than 1 year after its enactment to be hearing aid compatible. On May 11, 1989, the Commisssion released an order adopting rules consistent with Public Law 100-394. A petition for reconsideration of this order is currently pending.

On October 28, 1988, the President also signed the Telecommunications Accessibility Enhancement Act of 1988, Public Law 100-542. This law requires the General Services Administration to take action as necessary to assure that the federal telecommunications system is fully accessible to the hearing and speech-impaired populations and directs the Commission to complete its interstate TDD relay system inquiry, CC Docket No. 87-124, within 9 months of enactment of the law.

In response to Public Law 100-542, the Commission released an order on July 27, 1989, finding that an intersate TDD relay service is necessary to provide reasonable access to telephone service to the hearing and speech impaired. The Commission issued a Further Notice of Proposed Rulemaking (FNPRM) to consider specific rules. In the FNPRM, the Commission concluded that the benefits of an interstate TDD relay system outweigh the costs, the FCC has jurisdiction to require such a system, and users of the service should pay the same rates as non-TDD users. The FCC also noted that interexchange carriers could provide the service and recover costs from charges associated with their other interstate, interexchange services or the National Exchange Carrier Association could manage the service and recover costs from the Universal Service Fund. The FNPRM is still pending.

ITEM 20. FEDERAL TRADE COMMISSION

December 22, 1989.

Dear Mr. Chairman: In response to your letter of October 11, 1989, I am pleased to forward the annual staff summary of Federal Trade Commission activities affecting older Americans for the year 1989. As this summary indicates, many of the Commission's efforts to police the market for unfair or deceptive practices and to promote a competitive market are particularly significant for older consumers.

I hope this information will be helpful to the Committee. Please let me know if we can provide any further assistance.

By direction of the Commission.

Janet D. Steiger,
Chairman.

Enclosure

STAFF SUMMARY OF FEDERAL TRADE COMMISSION ACTIVITIES AFFECTING OLDER AMERICANS

This report discusses recent activities of the Federal Trade Commission on behalf of older Americans. The first section of the report describes the Commission's health-related activities, which are of particular importance to older Americans because persons over age 65 spend almost three time as much per capita on health care as do other adults. The second section addresses a variety of non-health-related issues that have a disparate impact on older Americans. These include the mandatory review and enforcement of the Commission's Funeral Rule, enforcement of the Commission's Mail Order, R-Value, Used Car, and Cooling-Off Rules, investigations into the delivery of legal services, issues surrounding credit, investment and travel frauds, and activities in the real estate, grocery, transportation, and taxicab industries. The final section describes the Commission's consumer education activities that are of special significance to older consumers.

HEALTH-RELATED ACTIVITIES

HOME HEALTH CARE

Older Americans make greater use of health care facilities, including hospitals, than other segments of the population. Thus, as a group, they stand to benefit more from effective competition among health care providers.

Home health care agencies, which offer skilled nursing and other health services to patients in their homes, can provide some older Americans with an important alternative to hospitalization or nursing home care. Home health services offer the possibility of reduced health care expenses and can enable some people who would otherwise require institutional care to remain at home.

One of the key components of effective home health care is the durable medical equipment necessary for the patient to be able to receive care at home instead of in a hospital. The Commission completed its investigation of the proposed merger of two of the largest suppliers of home health care beds in the United States and found reason to believe that the merger would raise prices to consumers. After the Commission directed its staff to seek an injunction against the transaction in Federal district court, the parties cancelled the transaction.

HOSPITAL SERVICES

The results of a study released in January 1989 conducted by the Bureau of Economics on hospital costs and the effects of state certificate-of-need ("CON") regulations were incorporated in several staff comments filed this year. CON regulations limit the entry of new hospitals into the market. The study found that hospital costs might decline by 1.4 percent, or $1.3 billion per year, if all states with CON laws doubled the dollar thresholds at which they review hospital expenditures. Thus, the study found that CON laws do not appear to serve their originally intended purpose of reducing hospital costs. Staff's comments were filed in several states, including Nebraska, North Carolina, and Ohio in February, March and June 1989. The Commission's staff also discussed the effect of CON laws in March 1989 testimony before the Subcommittee on Health for the Committee on Ways and Means of the U.S. House of Representatives.

In addition, the Bureau of Economics has undertaken a study of hospital merger policies in order to assist in the development of an effective antitrust policy toward hospital markets generally and hospital mergers in particular. The study examines the vast literature in health care economics to apply the latest empirical and theoretical findings to health care antitrust issues. This study is nearing completion.

The Commission also investigates mergers or proposed mergers among hospitals which may injure competition. In November 1989, the Commission issued an administrative complaint challenging the acquisition of one hospital by another in Ukiah, CA. The transaction gave one firm control of three of the five general acute care hospitals in the area. According to the complaint, the acquisition will injure consumers by giving one firm a dominant position in the market and increasing the likelihood of collusion among the hospitals in the area. In another case, two hospitals in the same community rescinded their affiliation agreement after the Commission staff completed its investigation.

NURSING HOMES

Currently about 23,000 nursing homes provide care to approximately 1.4 million older residents in the United States. For some time, the Commission has been investigating marketing practices in the nursing home industry. In 1988 the Commission's staff began a project to improve a liaison with nursing home ombudsmen, State attorneys general, and other appropriate sources in order to develop leads for possible investigations of unfair and deceptive practices by nursing homes. In particular, the Commission's staff is looking into potentially unfair or deceptive provisions in nursing home contracts.

MEDICARE SUPPLEMENT INSURANCE

The Commission's activities in this area included the filing of Commission staff comments with the U.S. Department of Health and Human Services ("HHS") urging the Department to develop regulations that make clear that certain types of legitimate, pro-competitive arrangements and practices do not violate the Medicare and Medicaid anti-kickback statute. HHS was developing regulations to clarify what practices are permissible under the statute. The Commission's staff commented that some business arrangements and practices that could be construed to violate the law are actually likely to increase competition among health care providers and help control Medicare and Medicaid costs as well as costs to the patients of these programs. The staff urged that HHS interpret its rules in a way that allows the continuation of pro-competitive forms of health care insurance and providers such as Health Maintenance Organizations ("HMOs") and Preferred Provider Organizations ("PPOs").

PRESCRIPTION DRUGS

Although persons aged 65 and over comprise only about 12 percent of the population, they consume over 30 percent of all prescription drugs nationwide. Consequently, savings on prescription drugs purchases are especially significant for older consumers.

In 1989 the Commission staff continued its investigation of State pharmacy board regulations that prohibit pharmacists and pharmacies from offering services that provide consumers with more convenient access to prescription drugs. In response to these investigations, one state board voluntarily liberalized its restrictions on the operation of mail service pharmacies and on the operation of pick-up stations or prescriptions depots that facilitate the delivery of prescription drugs to consumers.

In June 1989 the Commission staff filed comments with the New York State Senate opposing proposed legislation that would prohibit physicians and dentists from dispensing more than a 72-hour supply of prescription drugs to their patients. The comments pointed out that consumers are likely to benefit from the availability of physician dispensing as a possible alternative to dispensing by pharmacists.

The Commission staff also filed comments with the Massachusetts House of Representatives, opposing proposed legislation that would have prohibited prepaid health benefit programs that include coverage of pharmaceutical services from contracting exclusively with selected pharmacies to provide prescription drugs to their subscribers. The comments pointed out that the legislation could increase consumer costs for health insurance by preventing prepaid health benefit programs, such as health maintenance organizations, from obtaining lower prices for prescription drugs.

VISION CARE

In March, the Commission promulgated a rule that invalidates four types of State restrictions imposed on the commercial practice of optometry: (1) prohibitions on certain forms of lay association or control over optometric practices; (2) limitations on the number of branch offices that optometrists may own or operate; (3) prohibitions on the practice of optometry in commercial locations; and (4) prohibitions on the practice of optometry under a nondeceptive trade name. The Commission found that these restrictions harm consumers by raising prices to consumers and decreasing their access to vision care. The removal of these restrictions will stimulate competition in the vision care industry and allow consumers to purchase vision care goods and services at lower prices without any compromise in the quality of care that consumers receive. This matter is on appeal in Federal Court.

The Commission also continued requiring, as prescribed in the Eyeglasses I Rule, that optometrists and ophthalmologists give consumers copies of their prescriptions after an eye examination, thereby enabling consumers to comparison-shop for eyeglasses.

The Commission staff also is engaged in discussions with state boards composed of vision care professionals about the revision of regulations restricting truthful advertising.

In March 1989 the Commission staff submitted comments to the Michigan Board of Optometry concerning proposed regulations that would prohibit optometrists from delegating certain procedures to nonlicensed, qualified eye-care professionals unless a licensed professional supervised performance of the procedure. The comments pointed out that the regulations would prohibit opticians from performing without supervision procedures that they have routinely performed, and that the proposed regulations appeared to harm consumers by increasing costs without improving the quality of care.

DENTAL CARE

The Commission staff conducted investigations of whether restraints by professional associations and state boards composed of dentists harmed consumers, including older Americans, by restricting unreasonably the dissemination of truthful information. As a result of one such investigation, a state dental board voluntarily amended its regulations governing advertising.

In April 1989 the Commission staff filed comments on regulations of the Pennsylvania State Board of Dentistry that appeared to restrict truthful price and quality advertising claims. The staff indicated that when professionals are free to advertise truthfully, prices for goods and services are lower than when anticompetitive agreements restrict such advertising.

PHYSICIAN SERVICES

In August 1989 the Commission placed on the public record a consent order that would settle charges that a doctor in Sioux Falls, South Dakota illegally attempted to eliminate or limit competition among faculty members by conspiring with other doctors to boycott the obstetrician and gynecologist residency program of the University of South Dakota School of Medicine. Eleven other doctors in the area entered into consent agreements settling similar charges in 1988.

In July 1989 the Commission issued a consent order settling charges that 12 physicians, two medical societies, and hospital medical staff conspired to prevent a hospital from opening a clinic that would compete with the doctors. The complaint alleged that the doctors threatened not to refer patients to specialist physicians who would practice at the clinic, agreed to refuse to work with or for the proposed clinic, and threatened to stop referring patients to specialists at the hospital.

In January 1989 the Commission filed an *amicus curiae* brief in the Eleventh Circuit Court of Appeals in a case involving a vascular and general surgeon's loss of medical staff privileges at three hospitals. The brief argued that the State of Florida does not actively supervise hospitals' decisions to terminate staff privileges, as required for the State action doctrine to protect the defendants' conduct from antitrust scrutiny.

These Commission activities benefit older consumers, as well as consumers in general, by helping to remove limitations on the ability of consumers to choose among a variety of providers, helping to increase the availability of convenient and innovative forms of services and helping consumers to receive the benefits of price and service competition among health care providers.

PHYSICAL THERAPY SERVICES

In February 1989 the Commission staff submitted comments concerning proposed legislation in Missouri that would have prohibited physical therapists from accepting wages or any other form of payment from a person who refers patients to the therapist. The staff comments pointed out that the bill would prohibit therapists from working for referring physicians or physician-owned physical therapy services, and as a result was likely to injure consumers by reducing competition among physical therapy providers.

The comments filed in Missouri and staff comments submitted to the Nevada State Legislature in May 1989 also discussed proposed legislation that would prohibit physical therapists from paying referral fees. The comments pointed out that a total prohibition on the payment of referral fees could inhibit the operation of some alternative health care delivery systems, such as preferred provider organizations, that may reduce consumers' health care costs, and could restrict the ability of physical therapists to participate in referral services that would help consumers locate a suitable therapist. Therefore, the comments urged consideration of less restrictive alternatives that could protect consumers from abuses connected with the payment of referral fees while permitting arrangements that could be beneficial to consumers.

CHIROPRACTIC SERVICES

In April 1989 the Commission placed on the public record a proposed consent order that would prohibit the Texas Board of Chiropractic Examiners from restricting certain kinds of truthful advertising by chiropractors. The consent order would settle charges that the Board had enacted rules that unreasonably restrained advertising, and would permit the Board to adopt reasonable rules to prohibit advertising that the Board reasonably believes to be false, misleading, or deceptive, and to prohibit oppressive in-person solicitation.

The Commission staff is investigating restrictions on offering free or discounted services and advertising, including price advertising, imposed by a private association of chiropractors.

RESTRAINTS ON ADVERTISING BY HEALTH CARE PROFESSIONALS

Advertising by professionals in general, and by health care providers in particular, has grown tremendously since the mid-1970's. The Commission supports the right of professionals to advertise truthfully. However, the Commission also recognizes the importance of policing the marketplace to ensure that health care professionals do not engage in deceptive or misleading advertising practices.

The Commission staff works closely with professional health care organizations to help them develop ethical codes that protect against deceptive advertising without infringing on the rights of professionals to advertise truthfully. In December 1985, for example, the Commission published the proceedings of a Commission-sponsored national symposium on "Advertising by Health Care Professionals in the 80's." The symposium featured experts in most facets of professional advertising and was attended by more than 100 representatives of health care groups. The program expanded the Commission's dialogue with these groups, which continued in 1989, and provided information needed by the Commission for an effective professional advertising enforcement program.

In January 1988 the Commission issued a final consent order that prohibits the Wyoming State Board of Chiropractic Examiners, the licensing authority for chiropractors in Wyoming, from restricting the advertisement by chiropractors of prices and certain other truthful, nondeceptive information or from characterizing such advertising as unethical or unprofessional.

In June 1988 the Commission ruled that the Massachusetts Board of Registration in Optometry, the licensing authority for optometrists in Massachusetts, illegally restricted truthful advertising. The Commission decision upholds a 1986 ruling by an administrative law judge, which supported a Commission complaint charging that the board unlawfully conspired to prohibit optometrists from truthfully advertising discounts. The complaint also charged that the board prohibited optical and other commercial establishments from truthfully advertising the names of optometrists or the availability of their services. The order issued by the Commission does not affect the board's authority to prohibit advertising that is fraudulent, deceptive, or misleading in violation of State law.

In May 1988 the Commission staff filed comments on regulations of the Montana Board of Dentistry that appeared to restrict truthful price and quality advertising claims. The staff indicated that when truthful advertising is permitted, prices for goods and services are lower than where advertising is restricted or prohibited.

In 1989 the Commission continued its cooperative efforts with professional groups regarding allegations of deceptive advertising in a number of health care fields. During this year, the Commission staff initiated several investigations involving possible deceptive claims in advertising of health care services, and expanded its efforts to work cooperatively with State medical boards in their efforts to police deceptive advertising. In particular, the Commission staff is examining claims by infertility clinics and by plastic and cosmetic surgeons.

In addition, the Commission staff this year completed or initiated new investigations of State professional board regulations that may unnecessarily restrict nondeceptive advertising by dentists and optometrists.

These activities permit older Americans and others to obtain truthful information about health professionals' prices, services, and qualifications and to receive the benefits of price and service competition among health professionals, while allowing reasonable advertising guidelines that protect the public from false or deceptive advertising.

PODIATRY SERVICES

The Commission staff recently closed an investigation of regulations enacted by a State podiatry board after the board amended the regulations in question. The regulations had, among other things, prohibited certain kinds of truthful advertising by podiatrists.

MEDICAL INSTRUMENTS

The Commission staff regularly investigates proposed mergers among producers of medical instruments to determine whether each merger is likely to increase prices to health care professionals and thereby to consumers. An investigation of a proposed merger involving equipment and services used in sterilization of medical instruments led to the abandonment of the proposed transaction.

FOOD, DRUG, AND HEALTH CARE ADVERTISING

Older Americans spend considerably more per capita on health care than do other adults. An important part of the Commission's effort to protect the public from deceptive food, drug, and health care claims is its advertising monitoring program. In addition, the Commission's ongoing contacts with other Federal and State officials have helped identify potential targets and projects. During 1989 the Commission has taken action with respect to advertisements for foods and for drugs.

i. Food and Food Supplement Advertising

The Commission has an active program to police false and deceptive claims in food advertising. A U.S. Department of Agriculture study showed that persons over age 65 spend about 22 percent of pre-tax income on food, compared to 17 percent for persons under age 65. This increases to as much as 40 percent for those with smaller incomes. The Commission staff monitors extensively to determine current issues in food advertising and to identify new ad campaigns of significance to consumers. For example, the staff's monitoring has revealed that nutritional and other composition claims—*e.g.*, low-sodium, low-sugar, low-calorie, high-fiber, low-cholesterol and low fat—continue to be popular in food ads. Research conducted by the Opinion Research Corporation for the National Food Processors Association confirms that sodium, fat, calories, and sugar, and cholesterol claims are important to consumers.

During 1989 the Commission staff initiated several new investigations involving either false or unsubstantiated claims for foods or food supplements. In addition, several active cases were continued or concluded this year.

In 1988 the Commission held hearings before an administrative law judge on charges that Kraft, Inc., had misrepresented the calcium content of its Kraft Singles. The ALJ ruled that Kraft falsely advertised that its Kraft Singles cheese slices contain as much calcium as 5 ounces of milk and more calcium than do most imitation slices. The judge also found that the milk equivalency and imitation cheese superiority claims were unsubstantiated. The ALJ ordered the company not to misrepresent the nutrient content of its individually wrapped slices of cheese in the future. This ruling has been appealed to the Commission, and oral arguments were heard on December 7, 1989.

The Commission will hold administrative hearings in March 1990 to hear allegations that another major food producer, Campbell Soup Co., has made deceptive and unsubstantiated claims in its "Soup is Good Food" advertisements. According to the complaint, the ads link the low fat, low cholesterol content of its soups with a reduced risk of some forms of heart disease, but fail to disclose that the soups are high in sodium and that diets high in sodium may increase the risk of heart disease. The complaint charges that, in light of the representations made in the ads, the company's failure to make this disclosure is deceptive. If the Commission finds that Campbell violated the law, it may order the company to notify consumers of the sodium content of its soup in certain advertisements.

In September 1989 the FTC's Bureau of Economics released two reports concerning health claims policy for foods. One report provided an analysis of the appropriate role of health claims regulation generally. The second study examined the data from recent health claims made for fiber cereals and found that the claims provided significant benefits—2 million more households began to eat high-fiber cereals and the advertising reached those people who were ordinarily not reached by government and other general information regarding the potential benefits of fiber consumption.

ii. Drug Advertising

The Commission staff regularly monitors over-the-counter drug advertising, focusing especially on fraudulent or deceptive performance, pain relief, and safety claims.

Such claims are likely to be important to older consumers because of the higher incidence of health problems among this population.

In addition, the staff carefully monitors all advertising for weight-reduction plans and products which have an appeal for many overweight older Americans. In 1989, the Commission issued complaints against two nationally known companies, Schering Corp. and Revlon, Inc., for their advertising of weight and fat reduction products. The administrative complaint alleges that Schering falsely claims that Fibre Trim is a high fiber supplement and the recommended daily dosage of Fibre Trim provides a significant portion of a person's daily requirements of dietary fiber. The complaint also alleges that the company did not have a reasonable basis for claims that Fibre Trim is an effective weight loss or maintenance product and provides the health benefits associated with a fiber-rich diet.

The Commission's complaint against Revlon alleges that it had made unsubstantiated claims about the effectiveness of its Ultima II ProCollagen Anti-cellulite body complex. The Commission alleged that Revlon does not have a reasonable basis for its claims that the product significantly reduces cellulite and reduces the skin's bumpy texture, ripples, or slackness caused by cellulite, that its product helps to disperse toxins and excess water from areas where cellulite appears and increases sub-skin tissue strength and tone.

The Commission recently accepted a consent order with Nutritione, Inc., a Boston-based health club, which had claimed that its electric muscle stimulation treatments produced the same effects as exercises. The health club and its former owners agreed not to misrepresent the efficiacy or comparability of any diet, or strength development or fitness program or product.

In addition, in 1988 the Commission filed separate actions in Federal district court against companies engaged in the sale of baldness remedies. In one case, California Pacific Research, Inc., the court issued a preliminary injunction, prohibiting the company from making certain claims relating to the marketing of New Generation baldness preventative and remedy. In issuing the order, the judge stated that there is no scientific evidence to support a representation that the product is effective either to deter hair loss or to promote new hair growth. The order also requires the company to send copies of the order to all consumers who have purchased New Generation products within the last 2 years.

NON-HEALTH-RELATED ACTIVITIES

FUNERAL SERVICES

The Commission's Funeral Rule, which became effective in 1984, is of particular concern to older Americans. It seeks to increase consumer access to accurate information about prices, options and legal requirements prior to and at the time of purchase of a funeral. In summary, the Funeral Rule: (1) requires funeral directors to provide consumers with a general price list, a casket price list, and an outer burial container price list, as well as an itemized statement of the goods and services selected by the customer at the time funeral arrangements are made; (2) prohibits misrepresentations of legal and cemetery requirements and the preservative value of embalming, caskets, and vaults; (3) prohibits funeral directors from requiring the purchase of certain goods and services as a condition for purchasing other goods and services; (4) prohibits funeral directors from embalming without prior approval except in very limited circumstances; (5) requires funeral directors to make alternative containers available for direct cremation; and (6) requires funeral directors to give price information over the telephone.

To date, the Commission has filed 12 enforcement actions for violations of its Funeral Rule. Eleven of these cases resulted in court-approved consent decrees that imposed civil penalties ranging from $10,000 to $30,000 on funeral homes in Texas, New Mexico, Nevada, Pennsylvania, Oregon, Idaho, and Washington, D.C. The Oregon and Nevada settlements also required that $7,500 and $4,200, respectively, in consumer redress be paid to customers who had not given prior authorization for embalming of the deceased or who were charged for cremation caskets that were not actually used. The remaining case resulted in a court-imposed civil penalty of $80,000 against a Texas funeral home. This decision has been appealed and the matter is pending. Other matters are under investigation or negotiation by the Commission staff. Staff members also continue to work closely with consumer and industry groups to educate their members about the requirements of the Funeral Rule.

In 1988 the Commission also initiated a rulemaking proceeding to review the Funeral Rule. This proceeding was mandated by Section 453.10 of the Rule. During this mandatory review, the Commission will determine whether the rule should be retained unchanged, or be expanded, modified, or repealed. The determination will be based on whether the Rule is operating as expected and whether it is still needed. In May 1988 the Commission initiated this proceeding when it issued its Notice of Proposed Rulemaking ("NPR"). The NPR informed the public about the evidence the Commission had gathered, the issues that had been raised and the means for public participation in the rulemaking hearings. The Commission received 189 comments, of which 147 came from consumers. Eighty witnesses presented testimonial and survey evidence at four public hearings held in Washington, D.C., Chicago, and San Francisco between November 1988 and February 1989. Additional submissions were made in April and May 1989 by the participants in the rulemaking on whether the Rule should be retained, modified, or repealed. The rulemaking staff and presiding officer are currently preparing their reports, summarizing the record evidence and making recommendations to the Commission. The Commission will likely make its final decision by late next year.

During 1989 the Commission staff continued its investigations of certain State board regulations that may restrict pre-need sales of funeral services. In response to these investigations, one State board deleted its prohibition on testimonial advertising affecting both pre-need and at-need funeral services.

The Commission staff also testified before a Pennsylvania legislative committee, and filed a comment with the Virginia General Assembly, concerning proposed legislation that would restrict pre-need sales of funeral arrangements.

MAIL ORDER SALES

In issuing its Rule relating to mail order sales, the Commission noted that less mobile consumers, especially older Americans, frequently order by mail. The Rule requires sellers to: Make timely shipment of orders, give options to consumers to cancel an order and receive a prompt refund or to consent to any delay, have a reasonable basis for any promised shipping dates (the Rule presumes a 30-day shipping date when no date is promised in an advertisement) and make prompt refunds. The Commission staff works closely with industry members and their association to obtain compliance with the Rule and initiates law enforcement actions where appropriate. In 1989 the Commission initiated a rulemaking proceeding to determine whether the Rule should be amended to cover orders placed by telephone. The Commission began the proceedings by publishing an Advance Notice of Proposed Rulemaking in November 1989. After reviewing the comments, the Commission will solicit oral and written comments on the proposal.

ENERGY COSTS

The cost of heating and cooling one's home can be significant to many consumers, but especially to older Americans. These individuals may be more likely to spend time at home than working or school age persons, and thus may not be able to conserve energy costs by lowering the thermostat during the day in winter or raising the thermostat during the day in summer. The cost of heating or cooling may fall particularly hard on the older person who lives alone, because the cost is not proportionately less than for a household including two or more persons.

The Commission's Rule regulating claims about home insulation products, the R-value Rule, seeks to protect consumers who attempt to lower energy costs by adding insulation to their existing homes and when purchasing new homes, including retirement housing. The Rule requires that insulation sellers disclose the R-value of the insulation so that consumers can buy the best thermal protection for their money. (R-value measures insulation effectiveness: The higher the R-value, the greater the insulating power.) The Rule also requires installers and new home sellers to give consumers a written disclosure of the type and R-value of the insulation installed.

In 1989, the Commission settled two district court actions, one filed in 1988 and the second filed in 1989, that alleged violations of the R-value Rule. The actions charged that two cellulose insulation manufacturers overstated the R-value of their insulation. One consent decree requires defendants to pay a civil penalty of $20,000, to conduct a quality control testing program staisfactory to the Commission for three years, and to comply with the Rule in the future. The second consent decree requires the defendant to pay a civil penalty of $15,000 and prohibits further violations of the Rule.

USED CAR SALES

The Used Car Rule requires that car dealers disclose on a "Buyers Guide" window sticker information concerning whether the vehicle comes with a warranty or is sold "as is." This Rule can be of particular benefit to older Americans who may be more likely to purchase used rather than new vehicles. The Commission has vigorously enforced this Rule and, in FY 1989, filed actions against nine car dealers and obtained a total of $185,000 in civil penalties.

DOOR-TO-DOOR SALES

The Cooling-Off Rule requires that consumers be given a 3-day right to cancel certain sales that occur away from the seller's principal place of business. This sales method may have a greater impact on older Americans, who may be more susceptible to the high pressure sales tactics that sometimes accompany door-to-door sales. The Commission continued monitoring and enforcing compliance with the Cooling-Off Rule during 1989. Staff regularly investigates complaints and reviews the practices of companies engaged in door-to-door sales to ensure that their procedures adequately inform customers of their right to cancel. For example, several 1989 investigations focused on possible rule violations by sellers of hearing aids, a product purchased in disproportionate shares by older consumers. In one civil penalty action completed in 1989, which included Cooling-Off Rule violations as well as other law violations, the Commission obtained consumer redress in the form of contract cancellations and refunds of amounts previously paid.

DELIVERY OF LEGAL SERVICES

During 1989 the Commission staff continued its efforts to facilitate consumers' access to legal services. Removing unnecessary restrictions may benefit older Americans, whose income often exceeds limits established by Government-sponsored assistance programs but may be insufficient to cover high legal fees.

In July 1989 the Commission staff commented to the Florida Supreme Court on its rules of professional conduct governing attorney advertising and solicitation. The staff suggested modification of the rules to allow truthful, nondeceptive advertisements and solicitation.

In addition, the Commission staff in 1988 continued its investigation of advertising restrictions by a State bar association on lawyers' marketing of their services to older Americans.

CREDIT

In the area of consumer credit, the Commission protects older consumers by enforcing the age discrimination provisions of the Equal Credit Opportunity Act (ECOA). Although Federal law permits creditors to consider information related to age, creditors may not deny, reduce, or withdraw credit solely because an otherwise qualified applicant is over 61 years old. Moreover, retirement income must be considered, to the extent that employment is considered in rating a credit application, and credit may not be denied or withdrawn because credit-related insurance is not available to older persons based on their age.

During the past year, the Commission has resolved three cases under the ECOA in which discrimination on the basis of age was alleged. In December 1988, an amended complaint was filed and a consent decree entered in *Federal Trade Commission* v. *Green Tree Acceptance, Inc.*, Civ. Action No. 4-46-469-k N.D. Tex. Dec. 15, 1988). Green Tree, a financier of mobile homes and recreational vehicles, paid a civil penalty of $115,000 to settle FTC charges that the company discriminated on the basis of age by requiring elderly applicants to make larger down payments. The consent decree also prohibits Green Tree from discriminating on the basis of age in the future.

In October 1989, a complaint was filed and a consent decree was entered against a large retail creditor that required successful applicants to its instant credit program to be employed full-time and so discriminated against elderly applicants who received their income from retirement benefits and part-time employment. To resolve the complaint allegations, the creditor paid a civil penalty of $275,000 and was enjoined from discriminating on the basis of age.

Also in October 1989, the principals of a small loan company entered into a consent decree to resolve allegations that they discriminated against elderly applicants by refusing to lend to persons who were not employed full-time. To resolve the complaint allegations, the principals agreed to pay a civil penalty of $12,500 and to be enjoined from discrimination.

Since 1983, six other cases alleging age discrimination under the ECOA were brought by the Department of Justice either on behalf of the Commission or based on evidence developed by the Commission staff. A consent decree was entered by the court in each of the cases in settlement of the issues raised. In those cases brought on the Commission's behalf, the defendants paid substantial civil penalties, ranging from $90,000 to $235,000, as part of the settlements. They were also enjoined from discriminating against older credit applicants in the future.

The Commission staff has also continued its investigatory testing program to monitor compliance with these provisions of the Act. Testers pose as credit applicants to discover whether unlawful discrimination is occurring during the application interview that might otherwise go undetected. The testing program continues to be an efficient means of selecting targets for investigation and assessing compliance with the Act. One of the cases brought within the last year relied on evidence from testing. Investigations currently underway also include allegations of age discrimination by creditors.

GROCERIES

Older Americans are particularly susceptible to competitive harm from high food prices and noncompetitive markets. In the past year, the Commission has issued two administrative complaints against grocery store mergers that allegedly lessened competition, and accepted a consent order requiring divestitures of stores in concentrated markets in New England. The Commission also required the issuance of a consent order requiring divestitures of overlapping food product lines in the KKR acquisition of RJR Nabisco.

TRANSPORTATION

The Commission issued a decision and order in the *New England Motor Rate Bureau* case, ordering a tariff bureau composed of motor carriers to stop fixing prices for the intrastate transportation of goods, in Massachusetts and New Hampshire.

The Commission also accepted for public comment two consent agreements. One would order the New Jersey Movers Tariff Bureau and a related trade association of movers to stop fixing prices for the intrastate transportation of goods. The other proposed agreement would prohibit eight motor vehicle dealers and their trade association, the Cleveland Oldsmobile Connection, from agreeing not to advertise prices and other terms of new automobiles.

TELEMARKEING FRAUD

i. Investment Fraud

The Commission's investment fraud program is another example of a program that benefits all consumers, but especially older, retired citizens. Investment frauds frequently victimize the public through false promises of large returns on "safe" investments. These frauds obviously harm all investors, but they can particularly hurt older investors, who are vulnerable to fraudulent operatorts and often ill-prepared to absorb the losses. Some investment fraud firms have bilked individual consumers of $5,000 to $10,000 or more by promising large returns for investments in art work, gold mines, gemstones, precious metals, rare coinss, oil and gas leases, or cellular telephone licenses. These firms usually employ telephone room salespersons who use high-pressure, polished sales pitches.

Although fraud cases, especially those involving oral misrepresentations, are very difficult to investigate, the Commission has an active program to combat investment fraud. Since 1982 the Commission has succeeded in placing approximately 167 named defendants under preliminary or permanent Federal district court orders barring fraudulent and deceptive practices. The Commission also has obtained court orders freezing personal and corporate assets that may be used for consumer redress. The Commission staff estimates that since 1982 the Commission's actions have halted frauds that cost consumers approximately $1.2 billion. To date the Commission's efforts have secured approximately $33 million for consumer redress.

In 1989 the Commission continued its active program in this area. The Commission filed five cases in Federal district court involving investment coins and one case involving investment art. In five of these cases the Commission has been able to freeze the defendants' assets and secure preliminary injunctive relief.

ii. Other Telemarketing Scams

The Commission remains concerned about the proliferation of companies selling a variety of goods and services over the telephone through deceptive means—so-called "telemarketing scams." The Commission has been concerned about travel scams and scams involving the sale of water purifiers, to which older consumers may be especially vulnerable for several reasons.

With respect to travel scams, many older consumers have spent years in the work force saving and planning for travel during their retirement years. Thus, they provide a ready market for travel services. In addition, older citizens often have fixed incomes and seek "bargain" vacations. Finally, many older citizens may find telephone shopping to be a convenience, if not a necessity; thus, telemarketers provide an easy and sometimes essential means of purchasing goods and services, including vacation packages. For these reasons, the Commission is sensitive to the susceptibility of older Americans to travel scams.

During 1989 the Commission staff continued investigations of travel companies engaged in telemarketing fraud, and monitoring of the sales practices of compnaies that sell vacation or travel vouchers and certificates. As a part of these efforts, the Commission obtained a consent decree against one travel telemarketing company, permanently enjoining their deceptive marketing practices. The Commission staff continued litigation against another fraudulent travel scam. In a third case, the Commission's $6.6 million consumer redress judgment from Amy Travel Service, Inc., was upheld by the U.S. Court of Appeals for the Seventh Circuit.

With respect to water purifier telemarketing scams, older consumers may be especially concerned about their health, and fraudulent telemarketers play to this concern by making various false and misleading claims about the health benefits associated with their devices. During 1989, the Commission filed three Federal court actions against companies that misrepresented the ability of water purifiers to remove contaminants, promised consumers valuable prizes if they purchased thier purifiers (but delivered essentially worthless prizes), or failed to provide consumers with refunds of the $300 to $400 fee for the purifiers upon request, as promised. In these actions, the Commission has obtained preliminary injunctions and orders freezing the defendants' assets; the cases are awaiting trial. The Commission's objectives are to permanently prohibit the defendants' misrepresenatations and to obtain redress for injured consumers, if possible.

REAL ESTATE SERVICES

The Commission is involved in several different facets of real estate services that are of particular concern to older Americans. In 1988 the Commission concluded its Federal district court litigation, initiated in 1985 against Nationwide Mortgage Corp., Community Mortgage Corp., and the individuals. The defendants agreed to consent orders enjoining them from misrepresenting loan terms and requiring them to make affirmative disclosures to consumers before making loans.

The Commission staff also this year has been investigating restraints imposed by real estate multiple listing services. Real estate multiple listing services are associations of firms engaged in real estate services that provide a clearinghouse through which member real estate brokerage firms exchange information with one another on properties for sale in order to locate purchasers and transact sales more efficiently. The potentially anticompetitive restraints being investigated include maintaining bylaws and engaging in practices that exclude certain licensed real estate brokers from membership in the services or that restrict competition among the services' members. Removal of these restraints on residential real estate services may permit older Americans to enjoy increased price and service competition among real estate brokers.

LAND SALES

Since 1972, the Commission has issued 13 orders against land developers. The companies were charged with misrepresenting that the purchase of any land is a sound financial investment; includes little or no monetary risks; and will benefit the purchaser economically as a result of profitable resale. Some of the orders entered in these cases provided for pro-rata refunds to the purchasers or the expenditure of development costs to improve the subdivisions.

Many of the consumers that purchased these undeveloped lots are now senior citizens. These persons counted on the land purchases to aid them in their retirement years or to serve as development homesite property to build their retirement homes. These cases represent approximately 31 subdivisions located in Arizona, California, Colorado, Florida, New Mexico, Missouri, and Texas. More than a half million persons own property in these subdivisions.

The Commission staff, over the years, has monitored to ensure that the mandated redress payments or refunds have been paid and promised improvements made. In 1988 Horizon Corp., paid out a third distribution of $410,000 to 37,901 lot purchasers, and as proivded by the order, the remaining residue of $39,468.50 was distributed to four home improvement associations.

TAXICAB REGULATION

Older Americans are disproportionately heavy users of taxicabs. The Commission staff in 1988 continued its efforts to encourage State and local governments to end regulation of rates charged by taxicabs and to remove limits on the entry of new providers of taxi services. These regulations unnecessarily limit competition and tend to raise prices in the taxicab industry. These efforts included the filing of staff comments with regulators in Montgomery County, MD, and in Providence, RI.

CONSUMER EDUCATION ACTIVITIES AFFECTING OLDER AMERICANS

The Commission, through its Office of Consumer and Business Education, is involved in preparing and disseminating a variety of consumer publications and broadcast materials. Many of the subjects are of significant interest to older consumers. Some recent consumer education activities are described below.

COMPLAINT RESOLUTION AND SHOPPING AT HOME

In 1989 the Commission continued its cooperative efforts with the American Association of Retired Persons (AARP) in distributing *How to Write a Wrong*, a booklet jointly developed by the Commission and AARP. The booklet explains how to complain effectively about consumer problems and get results and also contains information about two types of merchandising frequently aimed at older citizens: door-to-door sales and mail order promotions. This booklet is a component of a training program developed by AARP for use in its 5,000 local offices around the country. The FTC, AARP, and the Consumer Information Center in Pueblo, CO distributed more than 18,000 copies in 1989 and more than 618,000 copies of the publication since it was first published in 1983.

TELEMARKETING SCAMS AND OTHER FRAUD

During 1989, the FTC continued its focus on telemarketing fraud and distributed its brochures concerning various aspects of the topic. Over the past 2 years, for example, the Commission has filled requests for several hundred thousand copies of publications such as "Magazine Telephone Scams," "Telephone Investment Frauds," and "Telemarketing Travel Frauds."

In addition, the Commission published and distributed copies of new brochures in 1989, to alert consumers about other kinds of marketplace fraud. These publications provided information that could be of special importance to the elderly because the topics refer to activities, products, and services often important to them. Such new publications include: "Dollars for Dancing," which cautions consumers against contract sales practices used by some dance studios; "Car Rental Guide," which explains car rental contract terms and suggests ways to negotiate a lower price; and "Program-length TV Commericals," a new kind of television sales program that may misrepresent itself as an objective news show. New publications that advise about products and services include: "Buying a Home Water Treatment Unit," which gives scientific purchasing information about a product that sales people sometimes misrepresent; and "Lawn Service Contracts," which describes how to select a contractor who will meet work requirements and environmental concerns. Requests for each one of these five brochures over the past year numbers 20,000 copies or more.

CREDIT

During 1989, the FTC continued to market and distribute its credit publications that it released in the past few years. The following titles are especially useful to older persons or to widows who find they have problems geting credit.

"Building a Better Credit Record," explains how to understand credit records and credit reports and warns against using fraudulent credit repair clinics. Since it was produced in 1988, more then 200,000 copies of the booklet have been requested. "Credit and Older Americans," produced in 1987, explains the Equal Credit Opportunity Act, especially in regard to age. Since its release, more than 75,000 free copies have been distributed.

Other credit publications that are useful to the elderly and that the FTC continues to distribute since they were released in 1987, include: "Fix Your Own Credit Problems;" "Lost of Stolen Credit and ATM Cards"; and "Buying and Borrowing." "Fix Your Own Credit Problems" is a how-to publication that also cautions consumers about credit repair clinics. More than 140,000 copies have been distributed in English and Spanish during the past 3 years. "Lost or Stolen Credit and ATM Cards," which discusses liability, was distributed to 67,000 consumers since 1987.

"Buying and Borrowing," a summary of information about buying on credit, buying on layaway, and buying by phone and mail, was distributed to more than 70,000 requestors over the past 3 years.

FUNERALS

During 1989 the Commission continued its print education campaign explaining key elements of the Funeral Rule. In response to individual requests, the Commission's staff and the Consumer Information Center sent out approximately 70,000 copies of the consumer brochure last year, bringing total distribution of this publication since 1984 to more thafn 300,000.

HEALTH

In 1989 the Commission and AARP distributed more than 122,000 copies of their joint publication, "Healthy Questions." This booklet explains how to select and use the services of health care professionals, including doctors, dentists, pharmacists, and vision care specialists. Since the publication's release in 1985, more than 522,000 copies have been distributed.

In addition, the Commission produced its own consumer brochure, "Health Claims: Separating Fact from Fiction," on specific aspects of health fraud. Since its release in 1986, more than 75,000 copies were distributed to organizations on aging and individual consumers.

HOUSING

In cooperation with AARP, the Commission developed a publication entitled "Your Home, Your Choice: A Workbook for Older Persons and Their Families." The publication addresses independent and assisted living options for older persons, including home health care, nursing homes, and life-care facilities. Such information is important for older Americans because more than 90 percent of persons over age 65 live in some form of "independent" housing. During 1989, the booklet was distributed to more than 51,000 requesters by the Commission, AARP, and the Consumer Information Center, bringing total distribution since 1985 to more than 350,000. In addition, AARP uses the workbook as a component in one of its training programs.

In 1986 the Commission published and distributed a brochure called "Real Estate Brokers" to help familiarize consumers with ways to protect their interests when buying or selling a home. The brochure explains technical terms that are used in the industry and elaborates on matters relating to real estate contracts. Since 1986, 95,000 copies of the free brochure were distributed to organizations on the aging and others.

In 1986 the Commission also released a consumer booklet, "How to Buy a Manufactured Home," prepared in cooperation with the Manufactured Housing Institute (MHI). The booklet discusses warranties and other consumer protections and explains the importance of home placement, site preparation, transportation, and installation. MHI released the publication at its 50th annual National Housing Show in Louisville, KY. It made 115,000 booklets available to manufacturers, who distributed them to retail sales centers for point-of-sale availability to consumers. MHI also provided copies of the booklet free to the Consumer Information Center for distribution. In 1989, more than 15,000 were requested, which brings total distribution from the Commission and the Center to more than 80,000. In a readership survey conducted by the Consumer Information Center in 1986, 45 percent of the respondents were 55 years of age or older.

MONEY MATTERS

As a companion piece to "Healthy Questions," the Commission, in cooperation with AARP, developed a consumer publication called "Money Matters," which explains how to select and use the professional services of lawyers, accountants, financial planners, real estate brokers, and tax preparers. In 1989 the booklet was distributed to 77,000 requesters by AARP, the Consumer Information Center, and the FTC, bringing total distribution since 1986 to approximately 600,000.

CONCLUSION

In this report we have reviewed Commission programs that are of special significance to older Americans. We emphasize, however, that older Americans also benefit very substantially from the Commission's general enforcement activities. In all of its work the Commission is guided by the conviction that vigorous and honest competition is the best mechanism for satisfying consumer needs at the lowest possible cost. Competitive markets are particularly important to older persons, who may be less mobile and limited in their ability to comparison shop. Commission efforts to halt consumer deception and eliminate anticompetitive conduct are designed to keep markets free and fair, and thereby promote the welfare of all consumers.

ITEM 21. GENERAL ACCOUNTING OFFICE

JANUARY 12, 1990.

DEAR MR. CHAIRMAN: This report is in response to the Committee's October 11, 1989, request for a compilation of our fiscal year 1989 activities regarding older Americans.

Our work covered a broad range of issues, including income security, health care, housing, nutrition, social, community and legal services, employment and age discrimination. Some of the Federal policies that address these issues are directed solely or primarily to the elderly, such as Social Security and Medicare. Other federal policies target the elderly as one of several groups served by a program or funding mechanism, such as social services block grants or Medicaid.

In the appendixes, we describe five types of GAO activities that relate to older Americans:

—Reports on policies and programs directed primarily at older Americans (see app. I).

—Reports on policies and programs in which the elderly were one of several target groups (see app. II).

—Testimonies on issues related to older Americans (see app. III).

—Ongoing activities on issues related to older Americans (see app. IV).

—Other activities by GAO officials, such as speaking engagements and publications, on issues related to older Americans (see app. V).

These products and activities and the issues addressed are presented in table 1. The table shows that income security was the leading issue among activities directed primarily at the elderly, while health was the leading issue across all types of activities and products.

Appendix I lists 59 issued reports on policies and programs directed primarily at the elderly (see table 1). We include in this section reviews of income security, health, social and other services, housing and veterans issues. We also describe GAO's management reviews of the agencies dealing with the elderly, as well as reports on the infrastructures of such agencies, including their computer systems. These aspects of agency operations determine how well agencies can implement policies relating to the elderly.

TABLE 1: GAO ACTIVITIES RELATING TO THE ELDERLY IN FISCAL YEAR 1989

Type of activity	Issue				
	Reports focused on the elderly	Reports with elderly as one of several target groups	Testimony	Ongoing activities as of Sept. 30, 1989	Other activities[1]
Income security	25	4	11	31	17
Health	21	7	10	48	18
Veterans	[2]12	[2]5	[2]2	[2]20	0
Social and other services	0	8	2	11	2
Housing	0	4	1	3	1
Other	1	0	0	1	1
Total	59	28	26	114	39

[1] Includes speaking engagements and publications.

[2] Includes veterans' health issues.

Appendix II describe 28 reports in which the elderly were one of several target groups for specific Federal policies. With the exception of Older Americans Act programs, social and other services are generally financed in conjuction with services to other populations. For example, block grants fund community services or energy assistance for the elderly, as well as services for other age groups; Medicaid finances nursing home care, as well as medical care for poor people of all ages; and Native American programs fund social and health services for Native American elderly, as well as progams for other Native Americans. We also describe two transition reports, which are broad policy overviews of health and human services and housing.

Appendix III describes the 26 testimonies given in fiscal year 1989 on subjects focused primarily on older Americans. We testified more times on income security than any other issue.

In appendix IV we have listed the 114 studies directly related to older Americans that were ongoing as of September 30, 1989. As table 1 shows, we are increasing our activities on all issues relating to the elderly.

In addition to reports and testimonies, GAO officials are called upon to appear on news interviews and professional and academic panels, as well as to publish on topics for which they have particular expertise. Appendix V describes the 39 times GAO officials spoke or published on aging issues.

You also asked for information on our employment of older Americans. Our policies prohibit age discrimination (see app. VI). On September 30, 1989, 54 percent of our work force was 40 years of age or older. We continue to provide individual retirement counseling and group preretirement seminars.

As arranged with your office, we are sending copies of this report to interested congressional committees and subcommittees. Copies also will be available to others on request.

This report was prepared under the direction of Joseph F. Delfico, Director, Income Security Issues. Should you have any questions concerning this report please call him on (202) 275-6193. Other major contributors are listed in appendix VII.

Sincerely yours,

LAWRENCE H. THOMPSON,
Assistant Comptroller General.

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Social Security: Status and Evaluation of Agency Management Improvement Initiatives (GAO/HRD-89-42, July 24, 1989)

Social Security: Time Required to Approve and Pay Attorney Fees Can Be Reduced (GAO/HRD-89-7, Oct. 18, 1988)

Social Security: The Trust Fund Reserve Accumulation, the Economy, and the Federal Budget (GAO/HRD-89-44, Jan 19, 1989)

Social Security: Views of Agency Personnel on Service Quality and Staff Reductions (GAO/HRD-89-37BR, Feb. 10, 1989)

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VA Health Care: Resource Allocation Methodology Has Had Little Impact on Medical Centers' Budgets (GAO/HRD-89-93, Aug. 18, 1989)

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DOD Health Care: Occurrence Screen Program Undergoing Changes, but Weaknesses Still Exist (GAO/HRD-89-36, Jan. 5, 1989)

DOD Health Care: Extent to Which Military Physicians Perform Administrative Tasks (GAO/HRD-89-53, Feb. 13, 1989)

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Abbreviations

AAPCC	adjusted average per capita cost
ACR	adjusted community rate
ADP	automated data processing
ADL	activities of daily living
ALJ	administrative law judge
CHAMPUS	Civilian Health and Medical Program of Uniformed Services
DDS	Disability Determination Service
DOD	Department of Defense
ESOP	employee stock ownership plan
FEHBP	Federal Employees Health Benefit Plan
FERS	Federal Employee Retirement System
FDA	Food and Drug Administration
GAO	General Accounting Office
HCFA	Health Care Financing Administration
HHS	Department of Health and Human Services
HMO	health maintenance organization
HUD	Department of Housing and Urban Development
MIG	Medicare Insured Group
NIMH	National Institute of Mental Health
OPM	Office of Personnel Management
PRO	peer review organization
RAM	resource allocation methodology
SQC	Statistical Quality Control
SSA	Social Security Administration
VA	Department of Veterans Affairs

FISCAL YEAR 1989 GAO REPORTS ON ISSUES PRIMARILY AFFECTING OLDER AMERICANS

During fiscal year 1989, we issued 59 reports on issues primarily affecting the elderly. Of these, 25 were on income security, 21 were on health, 12 on veterans' issues (including 5 on veterans' health care), and 1 on other issues. An asterisk after the report title indicates that the review was performed at the request of Committees or Members of Congress. Two asterisks indicate that the work was mandated by statute.

HEALTH

Board and Care: Insufficient Assurances That Residents' Needs Are Identified and Met (GAO/HRD-89-50, Feb. 10, 1989)*

Many elderly and disabled adults reside in board and care homes; little is known nationally, however, about the residents' needs, the care they receive, or the total number of homes operating in the United States. In 1976, the Congress enacted the Keys Amendment to the Social Security Act. The act required states to certify, to the Department of Health and Human Services (HHS), that all facilities in which a significant number of Supplemental Security Income recipients resided or were likely to reside met appropriate standards. HHS is only required to record that it received the states' annual certificates concerning compliance. HHS has done little to monitor state actions or sanction states not in compliance. In the six states we visited, the states continue to find serious problems in some licensed board and care homes. These problems range from very serious situations, such as residents being subjected to physical and sexual abuse, to persistent unsanitary conditions. In some cases residents were denied heat, were suffering from dehydration, were denied adequate medical care, or had food withheld if they did not work. Situations have occurred that have contributed to the death of board and care residents. HHS needs (1) to conduct a comprehensive assessment of states' oversight activities for their board and care population and (2) report to the Congress findings and, if appropriate, recommendations as to further steps needed to assure protection of residents and changes needed to the Keys Amendments to make it more effective.

Health Insurance: Bibliography of Studies on Health Benefits for the Uninsured (GAO/HRD-89-27FS, Feb. 24, 1989)*

This annotated bibliography lists studies concerning health benefits for the uninsured. It cites literature, including books, journal articles, and research reports published between 1980 and 1988.

Information Technology: Health Care Financing Administration's Budget Process Needs Improvement (GAO/IMTEC-89-31, Aug. 11, 1989)*

The Health Care Financing Administration's (HCFA's) Information Technology System budget request of $73.6 million for fiscal year 1990 may not accurately and fully estimate automated data processing (ADP) expenditures. HCFA's cost estimate of $22 million for an ADP initiative to expand system capacity for the Catastrophic Coverage Act of 1988 was not supported by sufficient analysis because HCFA lacked time to make a more accurate estimate. Fiscal years 1991-92 costs of the PRISM system have been increased by about $7.2 million. The system is intended to give HCFA additional ADP and telecommunications capacity to improve program operations and supply better data to assess the impact of new health care proposals. Further, HCFA has not included in its information technology systems budget request over $947 million included in its programmatic budget for Medicaid state and Medicare contractor ADP costs and for a major Medicare project. Although HCFA believes that contractors can contribute to Medicare ADP cost reduction--by cutting the number of systems used and trimming maintenance costs through sharing arrangements or adopting a HCFA-compatible system--HCFA believes that it does not have the legal authority to direct system standardization and consolidation.

Internal Controls: Need to Strengthen Controls Over Payments by Medicare Intermediaries (GAO/HRD-89-8, Nov. 14, 1988)

HCFA is experiencing problems in resolving claims processing errors concerning Medicare payments to institutions and needs to better use the results of external reviews in managing Medicare. HCFA has not ensured that intermediaries resolve potential claims processing errors identified by master record computer edits. This has resulted in a backlog of over 2 million unresolved errors as of July 1987. In reviewing 277 of these potential errors, GAO found 73 overpayments totaling $272,011 and 7 underpayments totaling $5,468. GAO projected that the three peer review organizations (PROs) had allowed millions of dollars in overpayments and underpayments. To more adequately ensure the appropriateness of Medicare payments to institutions, HCFA should more effectively use its internal controls and strengthen other controls.

Long-Term Care for the Elderly: Issues of Need, Access, and Costs (GAO/HRD-89-4, Nov. 28, 1988)*

In 1985, an estimated 6.2 to 6.5 million elderly depended on others for help with activities of daily living (ADL) or instrumental activities of daily living. About 20 percent of these dependent elderly lived in nursing homes; the majority lived in the community. Nearly all of the elderly in the community received all or some of their care from informal caregivers--family and friends. A 1982 survey noted that despite help from family and friends, about 40 percent of the elderly with one or more ADL dependencies still had unmet needs for help. Individuals with mental/behavioral problems and/or multiple ADL dependencies who require extra nursing care and for whom payments will be made by Medicaid are likely to wait the longest for help. The majority of public and private expenditures are for nursing home care; in fiscal year 1985, almost $36 billion of the estimated $45 billion spent nationally for long-term care was for the dependent in the community. Out-of-pocket payments by individuals and their families were an estimated $20 billion in 1985 and are expected to continue to rise. Any future strategy for handling the growing long-term care needs of the elderly will need to balance the potentially conflicting goals of access and cost containment.

Long-Term Care Insurance: State Regulatory Requirements Provide Inconsistent Consumer Protection (GAO/HRD-89-67, Apr. 24, 1989)*

Expenditures for long-term care services in the United States are expected to exceed $46 billion in 1988, principally for nursing home care. Publicly funded health care programs--Medicare for the aged and Medicaid for the poor--pay less than half, with consumers paying the remainder. Private long-term care insurance offers potential to help defray these costs; it is intended to address these gaps and limitations in other insurance. Typically, such policies pay a set amount over a specified period for each day a policyholder uses a covered service. But policies vary considerably in terms of coverage, the amounts payable per day, and other conditions affecting policy value and cost. State approaches to regulating long-term care insurance vary greatly. Half the states have adopted specific legislation, although they vary in the degree to which they meet the National Association of Insurance Commissioners' recommended minimum standards. Many states allow insurers to use policy provisions that offer consumers less protection than recommended. While such provisions can result in lower policy premiums, they can adversely affect policyholders by (1) decreasing the likelihood that needed services will be covered and (2) increasing the risk of policy terminations for reasons other than nonpayment of premiums.

Medicaid: Recoveries From Nursing Home Residents' Estates Could Offset Program Costs (GAO/HRD-89-56, Mar. 7, 1989)

Through asset recovery programs, states can recover from the estates of nursing home recipients or their survivors a portion of the expenses the state incurs in providing nursing home care. Estate recovery programs require Medicaid recipients whose primary assets are their homes to contribute toward the cost of their nursing home care in the same manner required of recipients whose assets are in the form of stocks, bonds, and cash. Unlike the payments made from liquid assets, however, payments from the home's equity are deferred until the recipient and his or her spouse and dependant children no longer need the home. Estate recovery programs provide a cost-effective way to offset state and federal costs, while promoting more equitable treatment of Medicaid recipients. GAO studied Medicaid nursing home programs in eight states to determine the potential financial impact of asset recovery programs on Medicaid and whether they provide a mechanism acceptable to the elderly for sharing the costs of nursing home care.

Medicaid: Some Recipients Neglect to Report U.S. Savings Bond Holdings (GAO/HRD-89-43, Jan. 18, 1989)

In a limited test in Massachusetts, GAO identified 143 Medicaid nursing home residents whose individual bond holdings could render them ineligible for benefits. Their combined outstanding bond holdings totaled about $1.5 million. Most of the holdings were not reported on the individuals' Medicaid applications, even though the form used in Massachusetts specifically asks recipients to list government bonds/notes. Although the Social Security Act requires state agencies that administer certain federal benefit programs to verify income by comparing the income declared by program applicants and beneficiaries with information obtained from the Internal Revenue Service and the Social Security Administration (SSA), it does not require verification of U.S. savings bond holdings. The Department of the Treasury maintains such information on the value of savings bond holdings, but this information is not currently available to the states. To help prevent ineligible individuals from obtaining Medicaid benefits, GAO recommends that (1) procedures for verifying saving bond holdings be included in an Income and Eligibility Verification System and (2) the Secretary of the Treasury, upon request, make such information available to the states.

Medicare: An Assessment of HCFA's 1988 Hospital Mortality Analyses (GAO/PEMD-89-11BR, Dec. 13, 1988)*

HCFA has made several refinements in its analytical approach to hospital mortality analyses. It has (1) modified the composition of the 17 broad categories used to characterize the principal diagnosis of all Medicare patients, (2) reported outcomes of each hospital over several years rather than a single year, and (3) initiated studies to validate its analytical approach. However, its current analytical approach and associated validation efforts still have several limitations that diminish its ability to ensure the validity of its analyses. Until HCFA expands on its current efforts to validate its approach and to examine the effect of data deficiencies, it will be difficult to determine the actual proportion of hospitals that are correctly identified as having, or not having, quality of care problems.

Medicare Catastrophic Act: Options for Changing Financing and Benefits (GAO/HRD-89-156, Sept. 15, 1989)*

Members of Congress and the public have expressed concern about the Medicare Catastrophic Coverage Act of 1988, particularly about the amount of supplemental premium that higher income Medicare beneficiaries will pay. In this report, which provides a summary of options available to either revise the benefits and financing under the act or phase out the program, GAO finds no "painless way" to reduce beneficiary funding. Revenues from other sources will need to be raised or benefits provided under the act will need to be cut. Compounding the problem from a budget standpoint is that the act was designed to build a contingency reserve so that estimated revenues exceed estimated costs for the catastrophic program in its early years.

Therefore, repeal of the program would increase the federal deficit for Gramm-Rudman-Hollings deficit reduction purposes for the next few years.

Medicare: Health Maintenance Organization Rate-Setting Issues (GAO/HRD-89-46, Jan. 31, 1989)**

The report provides an overview to three broad topics of concern relating to current rate-setting methodology. These issues are the (1) accuracy of the forecasted adjusted average-per-capita cost (AAPCC) rates; (2) appropriateness of tying health maintenance organization (HMO) payment levels to county fee-for-service Medicare cost levels; and (3) potential of the current capitation payment system to adversely affect Medicare, its beneficiaries, and HMOs.

Forecasts of future costs are made using relatively old data for the base period, because complete data on actual Medicare payments are generally not available until 3 years after a given time period. Thus, the data must be inflated to account for price increases over time and adjusted for factors such as changes in utilization rates and patterns. Questions have been raised about whether the county is the appropriate unit of local rate-setting, and whether there are alternatives to using local fee-for-service Medicare cost as the means of setting HMO payment rates. While the capitation payment system creates strong incentives for the efficient use of resources and cost containment, AAPCC capitation in a fee-for-service environment also creates incentives that may hamper the achievement of Medicare's cost containment and quality-of-care goals. GAO will present the results of its analysis in later reports.

Medicare: Impact of State Mandatory Assignment Programs on Beneficiaries (GAO/HRD-89-128, Sept. 19, 1989)*

Mandatory assignment laws reduced out-of-pocket health care costs for covered beneficiaries in four states that enacted laws requiring physicians, under certain circumstances, to accept Medicare's approved amount as payment in full. The Massachusetts law eliminated all billing by physicians that exceeded the amounts allowed under Medicare; the amount of savings in the other three states (Connecticut, Rhode Island, and Vermont) was less clear. Indicators developed by GAO suggest that physicians have not offset reducing bills for covered beneficiaries by increasing bills for noncovered beneficiaries. The volume and intensity of services provided by physicians to Medicare beneficiaries in three states did not increase as some people had feared. In Massachusetts, the volume and intensity of services increased, but the law's relative importance in causing this increase is not clear. Access to care was not reduced in the four states as a result of the mandatory assignment laws.

Medicare: Incentives Needed to Assure Private Insurers Pay Before Medicare (GAO/HRD-89-19, Nov. 29, 1988)

Medicare saved about $1.4 billion in fiscal year 1987 by paying beneficiaries' medical bills only after other responsible insurers had paid, but it is still paying many claims that other insurers should pay. While Medicare has taken steps to improve the information available for identifying claims that others should pay, insurers and contractors do not have adequate incentives to comply. Until they do, Medicare secondary payer provisions will not achieve all possible savings.

Medicare: Indirect Medical Education Payments Are Too High (GAO/HRD-89-33, Jan. 5, 1989)**

Under Medicare's prospective payment system, teaching hospitals receive extra payments. These payments are to compensate for higher patient care costs associated with providing graduate medical education. In fiscal year 1986, the additional payments were about $2.1 billion--$1 billion for direct medical education costs and $1.1 billion for the indirect cost of medical education. GAO's analysis showed that the add-on payments to teaching hospitals for the indirect cost of medical education are too high, and GAO recommends reducing the teaching adjustments factor, which helps determine these payments.

Medicare: Physician Incentive Payments by Prepaid Health Plans Could Lower Quality of Care (GAO/HRD-89-29, Dec. 12, 1988)*

Concerns have been raised that the incentive payments made to physicians participating in Medicare may be so strong that they represent a potential threat to the quality of care by encouraging inappropriate reductions in service. Incentive features most likely to adversely affect quality are (1) shifting HMOs' risk to physicians, (2) distributing incentives based on individual physician cost performance, (3) paying a percentage of HMO savings on patients, and (4) measuring physician cost performance over a short time period. Strong HMO management controls are needed to identify and prevent physician behavior that adversely affects quality of care.

Medicare: Program Provisions and Payments Discourage Hospice Participation (GAO/HRD-89-111, Sept. 29, 1989)*

This report discusses why hospices are not participating in Medicare, the reasonableness of hospice payment rates, and hospice quality requirements. At least one-half of the nonparticipating hospices sampled during GAO's national survey said the main concerns that led them not to participate in Medicare were (1) the language required in hospices' certification of terminal illness related to the certainty of the physician's prognosis of death, (2) the requirement that hospices obtain contracts with hospitals for inpatient services, (3) limits placed on aggregate payment amounts and inpatient days, and (4) payment rates.

Medicare PROs: Extreme Variation in Organizational Structure and Activities (GAO/PEMD-89-7FS, Nov. 8, 1988)*

The Utilization and Quality Control PROs operating under contract with the HCFA and provide nurse and physician review of hospital medical records for discharged Medicare patients. In fiscal year 1987 these contracts totaled $155 million. This fact sheet describes four aspects of PRO operations: (1) organizational characteristics, (2) review activities, (3) PRO objectives and interventions, and (4) relationships with other health and consumer groups in the state where the PRO is located.

Medicare: Reasonableness of Health Maintenance Organization Payments Not Assured (GAO/HRD-89-41, Mar. 7, 1989)

Under risk contracts, HMOs agree to provide all Medicare-covered services for a fixed monthly amount per beneficiary (capitation payment) and to experience a profit or loss depending on their cost to do so. Medicare law provides a payment safeguard to help ensure the accuracy of the methods used to calculate capitation rates. This safeguard, the adjusted community rate (ACR) process, is intended to prevent HMOs from retaining excessive profit from Medicare's payments. HCFA's process for reviewing, validating, and approving ACR submissions provides little assurance that the ACR process is meeting its payment safeguard objective. GAO's case studies of ACRs submitted by 4 HMOs and review of a random sample of ACRs submitted by 15 other HMOs showed that the process is susceptible to HMO manipulation and error. This is because HCFA does not always enforce its requirements that an HMO (1) use its own historic cost and utilization data as a basis for calculating its ACR, (2) follow the prescribed computational methods to account for differences between Medicare and commercial members' volume and cost of services, and (3) document the calculations.

Medicare: Status Report on Medicare Insured Group Demonstration Projects (GAO/HRD-89-64, June 27, 1989)**

The Secretary of HHS is authorized to conduct demonstrations of contracting on a prepaid capitation basis with Medicare Insured Groups (MIGs) to provide Medicare benefits to retirees. A MIG must agree to provide the full range of Medicare-covered services to its Medicare-eligible retirees for a per capita rate of payment. The MIG's loss or surplus for servicing these retirees depends on whether its costs to provide the Medicare services are more or less than the capitation payment. HCFA has entered into cooperative agreements with Chrysler Motors Corporation, Southern California Edison Company, and Amalgamated Life Insurance Company to establish the three MIG projects authorized by the Omnibus Budget Reconciliation Act of 1987. In April 1989, HCFA officials told GAO that they were not certain when any of these projects would become operational.

Medicare: Statutory Modifications Needed for the Peer Review Program Monetary Penalty (GAO/HRD-89-18, Mar. 30, 1989)*

Medicare seeks to ensure that beneficiaries receive hospital care that is medically necessary and meets professionally accepted standards. To detect any violations of such standards, Medicare contracts with PROs to examine beneficiaries' inpatient hospital records. If they identify instances of improper or unnecessary care that are gross and flagrant or numerous, PROs must report them to HHS's Office of the Inspector General (OIG) and provide appropriate recommendations. In the most serious cases Medicare can exclude the provider from the program. If exclusion is not warranted Medicare can impose monetary penalties instead. The dollar penalty, however, is based on the cost of Medicare of the improper or unnecessary care, and this cost can be very small. In a 1987 memorandum, the OIG advised PROs not to submit cases with recommendations for monetary penalties unless the penalty would be cost effective. Specifically, the memorandum indicated that PROs should not recommend such penalties unless, among other things, (1) the provider displayed a pattern, rather than one or two instances, of unnecessary or poor-quality care and (2) the Medicare program improperly reimbursed the provider a significant amount of money. To make the PRO monetary penalty a useful alternative when exclusion is not appropriate, the Social Security Act should be amended by substituting a fixed dollar limit on monetary penalties for the current cost-based limit.

U.S. Employees Health Benefits: Rebate for Duplicate Medicare Coverage (GAO/HRD-89-58, Mar. 23, 1989)*

The Medicare Catastrophic Coverage Act of 1988 extends catastrophic insurance protection to about 33 million elderly and disabled beneficiaries, including Medicare-eligible federal retirees. Many of these federal retirees are also enrolled in the Federal Employees Health Benefits Program (FEHBP). To finance the cost of the new catastrophic benefits, additional Medicare premiums were imposed. Because federal employees already pay premiums to have many of these medical costs covered under FEHBP, the Office of Personnel Management was directed to reduce FEHBP premiums to prevent federal retirees from paying twice for the same benefits.

INCOME SECURITY

ADP Budget: SSA's Fiscal Year 1990 Information Technology Systems Budget Request (GAO/IMTEC-89-60, June 28, 1989)*

SSA's fiscal year 1990 information systems budget request for $204 million provides $160.5 million to fund ongoing data processing and telephone operations and maintenance. The request includes $43.5 million to fund capital investment projects directed at enhancing the capabilities of its information systems, such as acquiring additional ADP and telephone equipment, new software development, and related contractor services.

ADP Planning: SSA's February 1989 Report on Computer Modernization Is Incomplete (GAO/IMTEC-89-76, Sept. 25, 1989)

This report presents the results of a review of SSA's ADP report, which showed the context in which the agency's fiscal year 1990 information technology budget supports the larger mission of SSA and prepares the agency to meet its service demands through the year 2000. The report, however, does not identify the specific long-term ADP activities to be undertaken; the objectives of each activity; the personnel, equipment, and financial resources needed to accomplish them; or their milestones. SSA officials estimated that it could take the agency until September 1990 to develop such detailed information on its computer modernization activities.

ADP Systems: SSA Efforts in Implementing Its Field Office Modernization (GAO/IMTEC-89-45, May 17, 1989)*

In 1982, SSA began the field office modernization project to provide for more rapid client service. The project called for increasing the number of computer terminals available to provide automated capabilities for entering information and making benefits calculations on new accounts, thereby eliminating the paper-oriented manual process. GAO found that: (1) SSA met its initial field office hardware installation schedule by installing 22,892 computer terminals and the new communications network in some 1,300 field offices and (2) SSA had redesigned portions of its retirement software and planned to complete this redesign by 1992. Also, SSA field office personnel believed the increased quantity of terminals and the ability to quickly access data base information for retirement and supplemental income accounts allow personnel to promptly answer client inquiries while clients are in a field office or on the phone.

Age Discrimination: Use of Waivers by Large Companies Offering Exit Incentives to Employees (GAO/HRD-89-87, Apr. 18, 1989)*

GAO reviewed *Fortune* 100 companies' use of waivers to release employers from certain legal claims under the Age Discrimination in Employment Act of 1967 in special short-term exit incentive programs. These programs were designed to encourage employees' early departure through some form of financial incentive. About 80 percent of *Fortune* 100 companies sponsored an exit incentive program at least once during 1979-88. About 30 percent of these companies required their employees to sign a waiver as a condition for receiving enhanced benefits. Overall, the use of waivers increased during the years 1985-88 and was highest in 1987 and 1988. During those peak years, 35 percent of the companies with exit incentives used them. Officials from companies that required waivers said such a practice protected the company from lawsuits. Companies not using waivers contended that they were unnecessary because of the voluntary nature of exit incentive programs and the adverse effect that waivers would have on employee relations.

Computer Operations: Improvements Needed in Social Security's Capacity Management Program (GAO/IMTEC-89-8, Jan. 18, 1989)

SSA has estimated that since 1982, it has spent about $643 million for its computer systems and planned to spend about $170 million in fiscal year 1989 to maintain and further modernize its systems. SSA has not effectively performed capacity management activities needed to accurately assess its computer capacity needs. For instance, while the agency prepares various reports on total system utilization, these reports do not have sufficient detail at the transaction level; therefore, SSA cannot determine whether the current computer processing environment is operating effectively and efficiently. The agency has initiated improvements, but until they are completed, SSA cannot determine its ongoing capacity requirements and provide assurance that future computer acquisitions are justified.

District's Workforce: Annual Report Required by the District of Columbia Retirement Reform Act (GAO/GGD-89-57, Mar. 22, 1989)**

The District of Columbia Retirement Reform Act provides for annual federal payments to the District of Columbia's Police Officers and Fire Fighters' Retirement Fund. These payments, however, are to be reduced when the disability retirement rate exceeds an established limit. An enrolled actuary determined the disability retirement rate to be 0.733 percent. Since this rate is less than the established limit of 0.8 percent, no reduction is required in the fiscal year 1990 payment to the fund.

Employee Benefits: Company Actions to Limit Retiree Health Costs (GAO/HRD-89-31BR, Feb. 1, 1989)*

Company group health plans, generally financed at least in part by the companies, play a major role in giving retirees and their dependents access to life-saving services. However, significant and increasing costs, and the potential adverse effects on business operations from disclosing unfunded benefits, could prompt companies to take action to change their health plan provisions. GAO looked at the retiree health plans of 29 medium and large companies in the Chicago area and found the following. All 29 companies have the right to modify or terminate health benefits for active workers and retirees due to specific language in the plans. During the 4-year period 1984-88, all the companies changed their plans by adding cost-containment measures to help ensure that the health services provided are medically necessary and qualify for coverage or by raising the amount plan participants pay for health coverage and for medical services received.

Employee Benefits: Companies' Retiree Health Liabilities Large, Advance Funding Costly (GAO/HRD-89-51, June 14, 1989)*

Companies have been financing retiree health care for years. Although seen as a low-cost employee benefit decades ago, such care now has become a major concern for employers because of demographic and economic trends. Retiree health costs have skyrocketed, in part because there are more retirees than ever before--workers retire earlier and live longer. The growing cost has raised questions about the security of retiree health benefits and companies' ability to pay future costs. In contrast to pension plans, where moneys are set aside to pay future benefits, companies generally handle costs for retiree health benefits on a pay-as-you-go basis out of current revenue. By and large, companies do not prefund retiree health care costs. The Congress may wish to protect retirees' health care coverage by requiring employers to advance-fund such benefits or provide coverage that retirees can buy at group rates.

Federal Employees: Early Retirements at the Defense Department in Fiscal Year 1988 (GAO/GGD-89-53FS, Feb. 23, 1989)*

This fact sheet examined certain aspects of the Department of Defense's (DOD's) management of the voluntary early retirement program authorized in fiscal year 1988 at the Army Material Command, the Army Aviation Systems Command, the Army Troop Support Command, and the Air Force Air Logistics Center. The fact sheet focused on the cost and possible adverse affects of large numbers of DOD employees electing early retirement.

Federal Retirement: Use of Contractors to Implement the Federal Employees Retirement System (GAO/GGD-89-29, Feb. 1, 1989)*

The use of contractors and other agencies by the Office of Personnel Management (OPM), SSA, and the Federal Retirement Thrift Investment Board to implement the Federal Employees Retirement System (FERS) was appropriate. OPM paid about $3.0 million primarily to develop and print information to help federal employees better understand and compare the features of the new system and the Civil Service Retirement System. SSA contracted through the Government Printing Office for an automated system, using machine-readable forms to respond to federal employees' requests for Social Security earnings and coverage information at a total cost of $621,506. The Thrift Board paid about $14.6 million primarily to develop and operate an automated recordkeeping system and to prepare, print, and distribute materials and forms.

Federal Workforce: Positions Eligible for Law Enforcement Officer Retirement Benefits (GAO/GGD-89-24, Feb. 2, 1989)*

Concern was raised that agencies may be inappropriately classifying jobs as law enforcement positions to help employee recruitment and retention, since federal employees in the law enforcement officer retirement program receive more generous benefits that are more costly to provide than the retirement program for other employees. Various laws enacted since 1947 allow employees in such positions to retire earlier and to receive higher annuities for the same length of service to maintain a young and vigorous law enforcement work force. The most recent data available showed that 44,646 employees were covered by the special retirement benefits as of June 30, 1987. From January 1985 through June 1987, the Department of Justice's law enforcement work force increased by 5,580, and the Department of the Treasury's U.S. Customs Service law enforcement work force increased by 817. The majority of the new hires were placed in previously approved positions; thus, the new positions generally did not appear to contribute to the work force increase or to aid in recruitment and retention.

Leveraged Buy-Out Funds: Investments by Selected Pension Plans (GAO/HRD-89-121, Aug. 1, 1989)*

GAO's review of the extent to which eight selected pension plan sponsors participated in limited partnerships, or leveraged buyout (LBO) funds, which pool capital for buy-outs, showed that they have invested a relatively small portion of their assets in LBO funds. Most sponsors have received higher returns than achieved on other plan investments. Further, the sponsors appear to be selective in choosing the funds to invest in, and most had diversified their investments among different funds.

Pension Plans: Labor and IRS Enforcement of the Employee Retirement Income Security Act (GAO/HRD-89-32, Jan. 23, 1989)*

The Employee Retirement Income Security Act of 1974 was enacted to eliminate mismanagement and abuses of private pension plan assets and to ensure that participants of these plans receive the benefits to which they are entitled. The Department of Labor and the Internal Revenue Service are responsible for enforcing the act's provisions. Labor's enforcement activities included: (1) an increase in the number of individual pension plan investigations closed from 1,259 in fiscal year 1985 to 1,323 in fiscal year 1987 and (2) an increase from about $42 million in fiscal year 1985 to about $106 million in fiscal year 1987 in the value of plan assets restored and transactions reversed as a result of its actions against plans with fiduciary violations. The Internal Revenue Service's efforts included increasing (1) the amount of excise taxes and penalties assessed from $7.9 million in fiscal year 1985 to $12.5 million in fiscal year 1987 and (2) the proportion of plans examined that were cited for violations from 20.5 percent in fiscal year 1985 to 32 percent in fiscal year 1987.

Poor Performers: How They Are Identified and Dealt With in the Social Security Administration (GAO/GGD-89-28, Jan. 27, 1989)*

This report provides insight into how the SSA identifies and deals with poor performers. SSA's performance management system provides supervisors with a mechanism for dealing with poor performers. Generally, the system produced positive results in cases where poor performance was identified. Although SSA experienced some success, GAO also learned that poor performers were not always identified and that the process for dealing with poor performers was not always used. Moreover, some supervisors said they would be reluctant to initiate performance actions against unsatisfactory performers in the future.

Private Pensions: Plan Provisions Differ Between Large and Small Employers (GAO/HRD-89-105BR, Sept. 26, 1989)*

Employer-sponsored pension plans that qualify for preferential tax treatment must meet several federal rules designed to improve the equity and security of pension benefits. The Joint Committee on Taxation has estimated that tax preferences for these plans will result in a $46 billion loss in tax revenue in 1989. The report focuses on the most prevalent types of pension plans in industries having most employer-sponsored plans. It describes some of the options that large and small companies sponsoring these plans chose in designing their pension plans to meet federal rules. GAO focuses on four provisions: (1) how long workers must wait to participate in the plans, (2) how long workers must wait to gain a legal right to receive earned benefits, or "vest," (3) how plans coordinate or "integrate" benefits with social security, and (4) how long workers must wait to be eligible for full retirement benefits. The report also discusses the impact of some of the changes mandated by the Tax Reform Act of 1986.

Private Pensions: Portability and Preservation of Vested Pension Benefits (GAO/HRD-89-15BR, Feb. 3, 1989)*

This briefing report answers questions about pension portability and preservation. Portability refers to the ability to transfer years of service credits or pension benefits from one employer to another. Preservation refers to encouraging workers to save cashed-out pension benefits for retirement income.

Railroad Retirement: Future Rail Employment and Trust Fund Solvency (GAO/HRD-89-30, Apr. 5, 1989)*

Rail employment has steadily declined, from 1,600,000 in 1945 to 307,000 at the end of 1988. A number of forces are at work that likely will cause this decline to continue to 200,000 or less. The overall drop in rail employment since 1945 has been influenced somewhat by this country's evolution toward a more service-oriented economy. The principal causes were the loses of passenger and freight traffic to other means of transportation. Despite lower employment levels in the future, current projections show that the railroad retirement account should be able to pay benefits into the first decade of the next century. These projections show an improvement in the financial status of the program because of a 1988 payroll tax increase, the extension of federal contributions from general revenues, and changes in certain other actuarial assumptions.

Social Security: Leadership Structure for an Independent Social Security Administration (GAO/HRD-89-154, Sept. 13, 1989)*

On the basis of its own reviews of the management experiences of different agencies and studies by others, GAO concludes that a single administrator rather than a board would be the best management structure for SSA. Under a board form of organization, board members are, in principle, able to bring different points of view and different experiences to the decision-making process. GAO's work, however, suggests that, in practice, boards have not proven effective in providing stable leadership, insulating decisions from political pressures, and ensuring that diverse viewpoints are considered in the decision-making process. Conversely, the single administrator form of organization offers the advantage of allowing for clear delineation of authority and responsibility--an operational characteristic found in most successful public enterprises.

Social Security: Results of Required Reviews of Administrative Law Judge Decisions (GAO/HRD-89-48BR, June 13, 1989)*

Social Security disability claimants whose initial benefit applications are denied may appeal through several layers of administrative and judicial review. The appeal process, however, is very time-consuming. For some claimants, even favorable decisions by administrative law judges (ALJs) are delayed because they are chosen at random for further review by SSA's Appeals Council. This random review process is carried out under the Bellmon Amendment. Early reviews under the amendment were directed at ALJs who issued favorable decisions in 70 percent or more of their cases and were so controversial they led to a lawsuit by the Association of ALJs. GAO studied 5,860 cases reviewed by the Appeals Council in fiscal year 1985. About 91 percent of the decisions reviewed were approved without objection. Over 80 percent of the cases not approved initially by the Council eventually became benefit awards anyway. In total, only 1.6 percent of the cases reviewed initially were kept off the benefit rolls. Nonetheless, benefit savings resulting from Bellmon reviews appear to be significantly greater than estimated costs.

Social Security: Staff Reductions and Service Quality (GAO/HRD-89-106BR, June 16, 1989)*

Morale at SSA has been identified as a problem in various surveys since 1986. SSA employees and managers attribute the low morale primarily to staff reductions, which have been underway since fiscal year 1985. In a 1988 GAO survey, SSA field office managers and employees ranked the quality of SSA's service in processing post-entitlement work loads lower than most of its other services. The agency has asserted that its quality of service has remained high over the last several years. Its most recent service quality reports submitted to the Congress in March 1989, generally indicates stable performance in the agency, with a major exception being the backlogs and processing time for hearings before ALJs, which have remained relatively high over the last 2 years. (See GAO/HRD-89-37BR.)

Social Security: Status and Evaluation of Agency Management Improvement Initiatives (GAO/HRD-89-42, July 24, 1989)

In March 1987, GAO issued a report on the management of SSA; it contained recommendations to improve program operations and better prepare for the future. SSA has made good progress in beginning to implement these recommendations. The Commissioner and her staff have exhibited much needed leadership in establishing agencywide goals and objectives and developing tracking systems to assure accountability. SSA has made a number of organizational changes, appointed a senior executive officer, and set up offices for financial management and strategic planning. It has also made substantive progress in setting up a structured planning process and taken steps to integrate planning with budgeting. The Commissioner has instituted several major changes to improve the management of ADP, but SSA needs to appoint a full-time information resource manager to ensure that efforts are integrated and coordinated and support long-range goals. In some areas, however, additional management action is needed to redirect initiatives or to take more effective actions to correct the problems pointed out in the management report.

Social Security: Time Required to Approve and Pay Attorney Fees Can Be Reduced (GAO/HRD-89-7, Oct. 18, 1988)[a]

A median of 7 months is needed for attorney fees to be approved and paid by SSA. The approval and payment process involves five steps: (1) notice of disability decision, (2) benefit calculation, (3) fee petition, (4) fee approval, and (5) fee payment. SSA can shorten the process by requiring attorneys to have claimants sign fee petitions before they are sent to the hearing offices, which could save up to 30 days and by performing a detailed review of the entire process to determine where other efficiencies may shorten the process time.

Social Security: The Trust Fund Reserve Accumulation, the Economy, and the Federal Budget (GAO/HRD-89-44, Jan. 19, 1989)[a]

The Social Security Amendments of 1977 and 1983 moved the Old-Age, Survivors' and Disability Insurance trust funds away from their traditional, pay-as-you-go financing basis toward the accumulation of a substantial, though temporary, reserve. Revenues (mainly payroll taxes) were set higher than needed to cover current expenditures (mainly retirement benefits), causing the trust fund balance to grow. As annual trust fund surpluses accumulate, they are invested in special issue U.S. Treasury securities. That is, the cash receipts that are not currently needed to pay benefits are loaned to the Treasury, which uses that cash to meet its current requirements.

In 1985, legislation was enacted that removed social security from the unified budget. Now budget documents routinely report separate totals for the on-budget programs and the off-budget social security program. At the same time, however, the budget documents routinely combine the on-budget and off-budget financial results and projections into a single series of numbers, labeled the "total deficit." In fiscal year 1988 the social security trust funds had a surplus of $39 billion. The rest of the government ran a deficit of $194 billion, and together with the social security surplus, this produced a combined deficit of $155 billion.

The budgetary reality is that the payroll taxes are being used to finance the current operations of the government and are masking the size of the on-budget deficit. The economic reality is that the trust fund reserves consisting of Treasury securities that are financing current consumption rather than productive investment are illusory. They will remain so until the rest of the government achieves approximate balance between revenues and outlays.

Social Security: Views of Agency Personnel on Service Quality and Staff Reductions (GAO/HRD-89-37BR, Feb. 10, 1989)*

GAO was asked to obtain the views of SSA personnel on the quality of the agency's service to the public and the impact of staff reductions. Questionnaires were mailed to a sample of 467 managers and 643 employees in SSA's district, branch, and hearing offices in June 1988. Both employees and managers said that quality of service to the public has gone down and that morale had gone down due to staff reductions. (See GAO/HRD-89-106.)

Software Maintenance: SSA's Use of Its Software Maintenance Package (GAO/IMTEC-89-38, June 15, 1989)

One important measure of a computer program's quality is how well it is structured. A well structured program is clearly organized; its logic is apparent and easily understood by a programmer. In contrast, a poorly structured program is not well organized; its logic is complex, making it difficult to understand, and increasing maintenance time and cost. Between June 1987 and September 1988, SSA periodically evaluated the quality of the batch programs supporting its retirement system using a measurement package. GAO analyzed the package's evaluation of these programs and found that 1,992 of the 2,441 retirement systems programs evaluated appeared to be poorly structured. SSA had not taken full advantage of the benefits of the measurement package because it had not (1) developed a complete inventory of its programs, (2) ensured that programs are consistently named, or (3) issued specific written guidance to managers on using the package.

VETERANS

Financial Audit: Veterans Administration's Financial Statements for Fiscal Years 1988 and 1987 (GAO/AFMD-89-69, Sept. 15, 1989)

This report presents the results of GAO's audit of the consolidated financial statements of the Veterans Administration (which became, in March 1989, the Department of Veterans Affairs (VA)) for the fiscal years ended September 30, 1988 and 1987. In addition, it addresses the financial condition of VA's life insurance and housing credit assistance programs, which are designed to be financed primarily from self-generated revenues. The report contains separate reports on VA's system of internal accounting controls and on its compliance with laws and regulations.

Financial Management: Opportunities for Improving VA's Internal Accounting Controls and Procedures (GAO/AFMD-89-35, Aug. 11, 1989)

VA has demonstrated a commitment to strengthen financial management and was one of the first federal agencies to prepare consolidated financial statements in accordance with generally accepted accounting principles for the federal government. However, GAO's audit disclosed weaknesses in internal controls, which VA has subsequently initiated actions to correct. The principal weaknesses GAO found were: (1) a lack of financial reporting systems that automated the financial system consolidation process and financial statements; (2) a lack of effective internal controls in the medical care, veterans' benefits, and housing credit assistance areas that are intended to ensure proper recoveries of cost and accuracy of account balances; and (3) inadequate automated payroll system controls for ensuring that all VA employees are paid correctly and on time.

VA Benefits: Law Allows Compensation for Disabilities Unrelated to Military Service (GAO/HRD-89-60, July 31, 1989)

In fiscal year 1986, the VA paid about $8.4 billion in compensation benefits to 2.2 million veterans disabled by injuries or diseases incurred or aggravated during military service. On the basis of a random sample of 400 veterans receiving compensation, GAO estimated that about 19 percent of the compensated veterans had disabilities resulting from diseases that were probably neither caused nor aggravated by military service. Many of the diseases were related to heredity or lifestyle rather than to military service. Based on the sample, GAO estimates that benefits paid for these types of disabling diseases totaled about $1.7 billion in 1986. Current law does not require VA to determine if military service was a contributing factor in the cause of a disease; the Congress may wish to reconsider whether these diseases should be compensated as service-connected disabilities. Any such changes should be prospective in order not to affect veterans already receiving compensation benefits.

VA Health Care: Allegations Concerning VA's Patient Mortality Study (GAO/HRD-89-80, May 18, 1989)*

GAO was asked to examine allegations that the VA altered the design of its patient mortality study to obtain results more favorable to the agency. It was alleged in a newspaper article that VA's Chief Medical Director ordered that the confidence level used in calculating the number of VA medical centers that had higher-than-expected mortality rates be changed from 95 to 99 percent in order to arrive at a lower number of hospitals with potential quality assurance problems. Based on information provided by VA, GAO cannot conclude that the Chief Medical Director or any agency official inappropriately attempted to give the appearance that it had fewer hospitals with higher-than-expected mortality rates than actually exist.

VA Health Care: Delays in Awarding Major Construction Contracts (GAO/HRD-89-75, Mar. 31, 1989)*

VA was given funding in fiscal year 1988 for 15 major construction projects, each estimated to cost $2 million or more. Public Law 100-202 required that (1) working drawings contracts be awarded by September 30, 1988, and (2) construction contracts be awarded by September 30, 1989. VA reported that, as of September 30, 1988, working drawings contracts for 2 of the 15 fiscal year 1988 projects and construction contracts for 3 of the 11 fiscal year 1987 projects had not been awarded as required. Information provided by VA officials indicated that various programmatic considerations caused the contracting delays. The most common reasons cited for delays were changes in the projects' scope or design or receipt of bids that exceeded the available funds.

VA Health Care: Few Veterans Denied Care at Florida Clinics (GAO/HRD-89-69, May 31, 1989)*

Concern was raised that VA clinics might be denying care to large numbers of veterans who apply for outpatient medical care in high-demand areas. GAO visited 4 of the 14 VA clinics in Florida, which VA considers to be a high-demand area. GAO estimates the four clinics denied outpatient care to less than 1.4 percent of the applicants during fiscal year 1988. These applicants were denied care because either they were not eligible to receive care at VA clinics or the services needed were not available.

VA Health Care: Improvements Needed in Procedures to Assure Physicians Are Qualified (GAO/HRD-89-77, Aug. 22, 1989)*

Verifying physicians' credentials and examining their ability to perform specified procedures are important elements of an effective quality assurance program. Despite legislation requiring VA to improve its credentialing and privileging processes, GAO found after reviewing eight medical centers during 1987-88, that problems still exist. State licenses were not being consistently verified with state boards; residents' backgrounds were not being adequately checked; privileges were not reviewed in a timely manner; credentialing and privileging decisions were not documented; physicians found to be deficient did not have their privileges formally reduced; and the names of physicians found to be incompetent were either not submitted to state licensing boards and/or the Federation of State Medical Boards or not submitted in a timely manner.

VA Health Care: Language Barriers Between Providers and Patients Have Been Reduced (GAO/HRD-89-40, Mar. 8, 1989)*

Public Law 95-201 requires the Secretary of Veterans Affairs to ensure that VA health care personnel have the basic proficiency in spoken and written English to carry out their responsibilities satisfactorily. VA's efforts since the law was enacted have significantly reduced the problems with English language proficiency among its direct health care providers.

VA Health Care: Resource Allocation Methodology Has Had Little Impact on Medical Centers' Budgets (GAO/HRD-89-93, Aug. 18, 1989)*

VA's Resource Allocation Methodology (RAM) is designed to link medical centers' budgets to actual work load and to provide a financial incentive for centers to improve their efficiency. Since 1985, VA has used RAM to transfer funds, through its budget formulation process, from less efficient medical centers to centers judged to be more efficient. The RAM-related adjustments to medical centers' fiscal year 1989 budgets generally represented less than 2 percent of the total dollars budgeted. The budget adjustments were small in relation to the centers' budgets because VA established a maximum amount that a center's budget would be increased or reduced in order to cushion the RAM's financial impact. In addition, as medical centers incur expenses that cannot be financed through their existing budgets, the centers' directors can request further funds from regional directors. The regional directors thus serve as safety nets to help centers cope with financial pressures caused by RAM-related budget adjustments.

Veterans' Benefits: Improvements Needed in Processing Disability Claims (GAO/HRD-89-24, June 22, 1989)*

Each year VA pays more than $14 billion for disability benefits and processes more than 600,000 initial and reopened applications for these benefits. GAO investigated numerous allegations about VA's claims-processing practices and found that the rate of occurrence for most of the alleged problems was very low or did not appear to adversely affect benefit decisions. Significant problems, however, were found in these areas: notices to veterans concerning VA decisions on disability claims did not give veterans meaningful information; development of claims was sometimes inadequate; and claims were not always controlled promptly. Overall, these problems resulted in adverse effects on veterans in about 13 percent of both the compensation and pension claims. With the exception of notice problems, it was difficult to identify any single cause of these problems.

Veterans' Benefits: Improvements Needed to Measure the Extent of Errors in VA Claims Processing (GAO/HRD-89-9, Apr. 13, 1989)

Each year VA pays about $14 billion in compensation and pension benefits to about 3.8 million veterans and their defendants or survivors, and about $125 million in burial benefits to veterans' survivor or estates. VA relies on Statistical Quality Control (SQC) system to determine the extent of errors made in adjudicating claims for these benefits. VA's SQC system does not provide reliable estimates of the extent of errors made in processing claims because (1) its case sampling is not consistently random; (2) regional staff performing SQC reviews are not independent of claims processing; and (3) the central office does not ensure that the regions comply with SQC procedures or that they report errors accurately. Moreover, the system does not break out error rate data by program. As a result, VA lacks the information needed to produce accurate reports or take corrective actions within a given program. VA can improve the reliability of its measurements of claims adjudication quality by addressing these problems.

Veterans' Benefits: Need to Update Medical Criteria Used in VA's Disability Rating Schedule (GAO/HRD-89-28, Dec. 29, 1988)

VA cannot ensure that veterans are given accurate and uniform disability ratings because the rating schedule has not been adjusted to incorporate the results of many recent medical advances. Without current medical criteria, it is difficult for rating specialists to classify a disease or injury correctly. As a result, veterans may be assigned inconsistent ratings, and some veterans may be undercompensated or overcompensated. To better ensure that the rating schedule serves as a practical tool in assigning uniform disability rates, VA should (1) prepare a plan for a comprehensive review of the rating schedule and, based on the results, revise medical criteria accordingly and (2) implement a procedure for systematically reviewing the rating schedule to keep it updated.

OTHER

Aging Issues: Related GAO Reports and Activities in Fiscal Year 1988 (GAO/HRD-89-38, Jan. 26, 1989)[a]

This report lists GAO issued products--35 reports, 10 briefing reports, and 3 fact sheets--concerning activities of the elderly. It also lists 59 assignments in process as of September 30, 1988. The reports cover various topics, such as age discrimination and health care.

APPENDIX II APPENDIX II

FISCAL YEAR 1989 GAO REPORTS ON ISSUES AFFECTING THE ELDERLY AND OTHERS

GAO issued 28 reports in fiscal year 1989, on policies and programs in which the elderly were one of several target groups. Of these, 8 were on social and other services, 7 on health, 5 on veterans issues, 4 on income security, and 4 on housing issues. An asterisk after the report title indicates that the review was performed at the request of Committees or Members of Congress. Two asterisks indicate that the work was mandated by statute.

HEALTH

ADP Planning: FDA's Plans to Improve Processing of Medical Device and Drug Applications (GAO/IMTEC-89-58, June 13, 1989)

As part of its mission, the Food and Drug Administration (FDA) is responsible for assuring consumers that medical devices and drugs are safe and effective for their intended uses. Responsibility for reviewing and approving medical device and drug applications is divided between two centers within FDA. The Center for Devices and Radiological Health, which reviews medical device applications, has prepared an automated data processing system to improve the quality and timeliness of its application reviews. The Center estimates that carrying out its plan will cost $3 million through fiscal year 1993. The Center for Drug Evaluation and Research, which reviews drug applications, has not prepared a plan. The Center is, however, participating in several activities aimed at improving its drug-review process, and Center officials say that they are developing a plan.

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ADP Systems: Better Control Over States' Medicaid Systems Needed (GAO/IMTEC-89-19, Aug. 2, 1989)*

The Health Care Financing Administration (HCFA) and the states depend heavily on automated systems to manage and control the annual $48 billion in Medicaid program costs. GAO reviewed 129 state requests for federal funds, submitted between November 1985 and July 1988, to either acquire or enhance automated Medicaid systems. GAO found that because HCFA has not issued guidelines concerning the requirement for states to prepare cost-benefit analyses, HCFA approved 116 of these requests--costing about $119 million--without the means to determine if the projects would be worth their costs or whether the most cost-effective alternative was selected. In addition, GAO noted that HCFA funds 90 percent of the costs of approved state enhancements to automated Medicaid systems, rather than 75 percent, as specified in federal guidelines.

Health and Human Services Issues (GAO/OCG-89-10TR, Nov. 1988)

This report highlights actions that should be taken in four critical areas affecting the large and diverse operations of the Department of Health and Human Services. The areas include improving departmental management, containing the cost of health care, enhancing the financing and delivery of social security benefits, and implementing the recently enacted welfare reform legislation.

Medicaid: Federal Oversight of Kansas Facility for the Retarded Inadequate (GAO/HRD-89-85, Sept. 29, 1989)

One month after it was terminated from the Medicaid program in 1987 for deficiencies deemed to pose an "immediate and serious threat" to the health and safety of its residents, the Winfield (Kansas) State Hospital and Training Center for the mentally retarded was reinstated as a Medicaid provider. Staff abuse of residents, resident neglect, inadequate medical and nurse services, inadequate dental services, and poor sanitation were the deficiencies cited for termination. Controversy surrounding the reinstatement of the facility, after so short a time, led to a request for GAO to determine whether the regional office complied with Medicaid requirements in its oversight of Winfield. This report contains our analysis of the facility's termination from the Medicaid program and its subsequent reinstatement.

Mental Health: Prevention of Mental Disorders and Research on Stress-Related Disorders (GAO/HRD-89-97, Sept. 12, 1989)*

In 1980, the Congress amended the Public Health Service Act to give special attention to efforts, both at the national and at the state and local levels, to prevent mental disability. As of April 1989, however, GAO found that the national prevention goals, priorities, policies, and programs required by the 1980 amendment had not been established. The Deputy Director for Prevention and Special Projects at the National Institute of Mental Health (NIMH) is responsible for carrying out the requirements of the amendment. GAO believes that the Deputy Director lacks the resources and authority to accomplish the task. In addition, only one person has served as the Assistant Administrator for Prevention at the Alcohol, Drug Abuse, and Mental Health Administration since the position's creation in 1983; he was appointed in August 1985 and served until June 1987. During fiscal year 1987, NIMH funded 42 grants, totaling over $9 million, that investigated loss-related stress and effective measures to prevent the development of stress-related disorders. However, the Institute's stress-related activities were spread among several divisions with no central direction.

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Prescription Drugs: Information on Selected Drug Utilization Review Systems (GAO/PEMD-89-18, May 25, 1989)*

GAO was asked to provide information on the extent to which drug utilization review systems can identify adverse reactions that may result from (1) the interaction of the prescribed drug with one or several other drugs, (2) the interaction of the prescribed drug with a known physical condition or illness, (3) the interaction of a prescribed drug with over-the-counter drugs, (4) incorrect dosages, and (5) the under- and over-utilization of the prescribed drug. The systems reviewed were those at Giant Pharmacies, Long Pharmacies, Thrift Pharmacies, Walgreen Pharmacies, National Data Corporation, Clinical Screening Program, Home Shopping Network, and the Tri-Service Mirco Pharmacy System of the Department of Defense. In summary, the information needed to identify adverse reactions through the drug utilization review system and the patient profiles is currently available in at least some operating systems. In addition, issues concerned with data security were dealt with, to some degree, by all systems.

Prescription Drugs: HCFA's Proposed Drug Utilization Review System Ignores Quality of Care Issues (GAO/PEMD-89-26BR, July 13, 1989)*

Current research on prescription practices for the elderly clearly indicates that inappropriate drug prescription can cause adverse drug reactions, which can lead to drug-induced illness, hospitalization and even death. In addition, inappropriate drug prescription leads to enormously wasteful expenditures by the government, private insurance companies, and of course, the recipients of these prescriptions. The Medicaid Catastrophic Coverage Act of 1988 covers outpatient prescription drug costs for an estimated 17 percent of the elderly and provides a mechanism for checking the safety of drugs for all the elderly who use a participating pharmacy. This mechanism is an electronic drug utilization review system for prescription at the point of sale. The review system function proposed by HCFA is very basic with regard to drug information to be produced: it will only compare drug-to-drug interactions for a limited number of drugs. Several important issues remain unresolved. It is also questionable whether HCFA's system will meet the legislative objectives of being operational by January 1, 1991, and be consistent with the law's requirements.

HOUSING

Housing and Urban Development Issues (GAO/OGC-89-22TR, Nov. 1988)

This report on the Department of Housing and Urban Development (HUD) describes GAO's concerns about two important issues that need closer attention--low-income housing and homelessness. If these issues are not addressed, the Secretary of HUD can expect (1) continuing decreases in the supply of rental housing that is available and affordable to low-income people and (2) a growing national homelessness problem. In this report, we offer a wide range of observations and suggestions on how the Secretary can best address these concerns.

Housing Conference: National Housing Policy Issues (GAO/RCED-89-174, Aug. 1989)

For many years, the federal government has played an important role in ensuring and providing an adequate and affordable supply of decent safe, and sanitary housing for many citizens. However, since 1980, federal funding for housing programs has been reduced substantially for some programs, and others have been targeted for further reduction or even elimination. The Congress and the administration have again begun to emphasize the need for immediate attention to programs that would provide an adequate and affordable supply of housing, including housing for the homeless. This staff study was sponsored by GAO to help it plan its future work on the problems of availability and affordability of housing for low-income households, homeless individuals and families, and first-time buyers. In view of the recently disclosed problems in mismanagement at the HUD, GAO also plans to undertake studies of internal controls in various HUD programs.

Partnership Projects: Federal Support for Public-Private Housing and Development Efforts (GAO/PEMD-89-25FS, Sept. 14, 1989)*

This fact sheet focuses on federal programs that support public-private partnerships in housing and community development. It describes federal programs currently supporting partnerships and, in particular, four characteristics of those programs: (1) purpose, (2) types of assistance, (3) mediating agents, and (4) target populations.

Tax Policy: Costs Associated With Low Income Housing Tax Credit Partnership (GAO/GGD-89-100FS, July 10, 1989)

The 19 publicly offered partnerships being marketed for low income housing tax credit projects on average use a higher proportion of equity to pay fees and expenses than those for residential and residential/commercial investments. The low income housing partnerships devote an average 27 percent of equity for fees and expenses, while the other types of investments use about 21 percent for this purpose. According to industry analysts, the proportion of fees and expenses spent by these low income housing partnerships are generally within guidelines issued by the North American Securities Administrators Association, Inc.

INCOME SECURITY

Employee Stock Ownership Plans: Allocation of Assets in Selected Plans (GAO/HRD-89-91, June 5, 1989)*

Employee Stock Ownership Plans (ESOPs) are recognized under the Employee Retirement Income Security Act as a type of defined contribution plan. Unlike other defined contribution plans, ESOPs have multiple purposes. In addition to providing retirement or deferred income to participants, their objectives include (1) improving productivity by giving workers an owner's stake in the success of the company, (2) broadening stock ownership and transferring company ownership to employees, and (3) providing a way to finance company operations or buy out existing owners. GAO reviewed nine ESOPs established in 1985. The data obtained on the nine plans showed that their ownership of company stock ranged from 2.2 to 100 percent; five plans owned less than 15 percent and four owned over 50 percent. Individual participant account balances ranged from $467 to $38,311. All nine plans allocated assets based on participant salaries. In three plans, the participants with the highest percentage of ESOP assets were company officers who also held company stock that was not in the plan.

Federal Compensation: Premium Taxes Paid by the Health Benefits Program (GAO/GGD-89-102, Aug. 8, 1989)*

State and other governmental entities impose premium taxes on insurance underwriters that service participating plans in the Federal Employees Health Benefits Program. In 1987, 22 of the 25 participating fee-for-service plans charged the health benefits program about $44 million for premium taxes imposed by the 50 states and other entities, including the District of Columbia and the Republic of Panama. These taxes are included in the plans' premiums charged to enrollees and the federal government. In 1980, the Congress exempted Federal Employees Group Life Insurance Program premiums from similar premium-based taxes because it considered the program to be self-insured and because states generally do not tax self-insured programs. Since the health benefits program operates in a similar fashion, the Congress may want to consider exempting the health insurance program from premium taxes as well.

Social Security: Selective Face-to-Face Interviews With Disability Claimants Could Reduce Appeals (GAO/HRD-89-22, Apr. 20, 1989)*

Nearly two-thirds of the people who apply to SSA for disability benefits are initially denied them. The state Disability Determination Service (DDS) makes the initial disability determinations for claimants. Many appeal this decision, asking for reconsideration; some appeal to an administrative law judge (ALJ). ALJs reverse DDS decisions in over 60 percent of the cases they decide, often disagreeing with DDS determinations about claimants' remaining ability to work. Some of these appeals might be avoided if DDS interviewed selected claimants at the reconsideration stage. To date, the limited experience with face-to-face interviews at the reconsideration stage suggests that these interviews improve decisional quality and resolve some cases that would otherwise go to ALJs for appeal.

SOCIAL AND OTHER SERVICES

Block Grants: Federal-State Cooperation in Developing National Data Collection Strategies (GAO/HRD-89-2, Nov. 29, 1988)*

Current flexibility of states in collecting data on block grant programs contrasts markedly with data collection requirements under previous programs, which required states to adhere to federal standards. The Congress, in an effort to receive uniform data, legislated the development of model criteria and standardized forms for some block grants that rely heavily on voluntary state cooperation. Through this approach the data were timely, and officials in the six states GAO reviewed--California, Maryland, Pennsylvania, Rhode Island, Texas, and Virginia--perceived the collection efforts to be less burdensome. However, data collected through this approach for block grants were not always comparable across states. National leadership in developing standard forms and definitions can improve data comparability.

Community Development: Distribution of Small Cities Funds by Pennsylvania (GAO/RCED-89-111, May 3, 1989)*

Under the Community Development Block Grant, Small Cities Program, funds are allocated to the states on a formula basis for the development of viable communities by providing decent housing and a suitable living environment and expending economic opportunities for low- and moderate-income persons. GAO was asked to review the methodology Pennsylvania used to distribute its funds. Some of GAO's findings showed that the state's methodology for estimating the percentage of low- and moderate-income persons is not consistent with the Housing and Community Development Act of 1974. The act says that estimates should be developed using income criteria and income data for the same year. Pennsylvania's methodology compared 1979 income levels with 1983 income criteria. The result is that the number of communities that are predominately of low and moderate income is higher than if HUD's estimates were used. The Department believes that the methodology the state uses overestimates the low- and moderate-income population in certain areas and has required the state to use HUD's estimates or some other appropriate alternative to distribute Small Cities funds.

Financial Audit: Food and Nutrition Service's Financial Statements for 1987 (GAO/AFMD-89-22, Mar. 15, 1989)

This report examines the statement of financial position of the Food and Nutrition Service, an agency of the Department of Agriculture, as of September 30, 1987. This is the first year that the Service's financial statements have been subjected to an audit in accordance with generally accepted government auditing standards. In addition, we also report on our study and evaluation of the Service's internal accounting controls and on its compliance with laws and regulations.

Food Stamp Program: Administrative Hindrances to Participation (GAO/RCED-89-4, Oct. 21, 1988)*

States have adopted a number of procedures to assure eligibility for Food Stamp Program benefits and ensure that needy people receive the appropriate amount of assistance in the most economical and efficient way possible. However, under certain circumstances, procedures adopted by the states GAO visited (California, Illinois, Maryland, Oklahoma, and Texas) have prevented or delayed eligible households from applying for food stamps and participating in the program. For example, GAO found that two offices conducted normal business only four days each week, which limited access to food stamp services; all local offices in one state and one local office in each of two other states did not consider applicants for expedited benefits or provide expedited benefits on time; and three local offices in one state did not always help applicants obtain the documents they needed to complete their applications.

Food Stamp Program: Participants Temporarily Terminated for Procedural Noncompliance (GAO/RCED-89-91, June 22, 1989)*

The Food Stamp Program is designed to provide low-income household members additional food-purchasing power to help them acquire an adequate low-cost diet. However, eligible program participants can be temporarily terminated from the program if they do not comply with procedural requirements. GAO, on the basis of its sample, estimates that about 49 percent of the households in Georgia and about 60 percent in Wisconsin experienced breaks in service. Participant-caused breaks resulting in benefit losses were caused by participants not (1) submitting timely monthly reports, (2) providing requested verification documents, (3) notifying their local office regarding the nonreceipt of stamps, or (4) meeting work requirements. Other participant-caused breaks were due to participants not filing timely or complete new applications for recertification.

Food Stamps: Reasons for Nonparticipation (GAO/PEMD-89-5BR, Dec. 8, 1988)*

In both 1979 and 1986 slightly more than half of the households eligible for food stamps did not participate in the program because they did not think they were eligible. Approximately one-third of the 50 percent who did not think they were eligible thought their assets or income were too high for the program. About two-thirds of the eligible nonparticipants who thought they were eligible for benefits did not try to get food stamps. The reasons this group gave most frequently for not participating in the program were: (1) they did not need the benefits and (2) they were concerned about the likely administrative "hassles."

Montana Indian Reservations: Funding of Selected Services, Taxation of Real Property (GAO/HRD-89-1BR, Oct. 11, 1988)*

This briefing report contains information applicable to the Blackfeet, Flathead, Fort Balknap, and Northern Cheyenne Indian Reservations in Montana. Specifically, it mentions (1) state and county health care and social services for Indians, (2) funding information for school districts serving Indian students, and (3) taxes billed by counties for real property located on the reservations and taxes not billed due to the tax-exempt status of trust and tribally owned properties.

Parental Leave: Revised Cost Estimate Reflecting the Impact of Spousal Leave (GAO/HRD-89-68, Apr. 6, 1989)*

GAO was asked to estimate the cost of adding a provision allowing 10 weeks of unpaid leave to care for a seriously ill spouse to H.R. 770, the Family and Medical Leave Act of 1989. H.R. 770 permits an employee to take up to 10 weeks of unpaid leave over a 2-year period upon the birth or adoption or placement for foster care of a child, or the serious health condition of a child or parent, and up to 15 weeks every year for personal illness. Upon returning to work, the employee is guaranteed the same or equivalent job. The legislation requires employers to continue health benefits for workers while on unpaid leave on the same basis as if they were still working, but does not require the continuation of other employee benefits. The proposed provision would provide the same job protection and health benefits for spousal leave.

The estimated cost of H.R. 770 to employers having 50 or more workers would be about $188 million annually. If the legislation is expanded to include leave to care for a seriously ill spouse, the cost increases by $142 million to about $330 million annually. When firms employing between 35 and 49 people are included, the cost of H.R. 770 is estimated to be $212 million annually, which increases to $358 million annually when the provision to care for seriously ill spouses is included.

VETERANS

Defense Health Care: Patients' Views on Care They Received (GAO/HRD-89-137, Sept. 13, 1989)*

Overall, patients expressed satisfaction with the care they received in all nine military treatment facilities GAO surveyed. High percentages of patients said they would want to go again to the same facility, for both inpatient and outpatient care. Despite generally favorable ratings, 53 percent of the outpatients and 39 percent of the inpatients commented negatively on some element of the care they received. Each facility surveyed had established patient representative programs to handle complaints and conduct surveys.

Defense Health Care: Workload Reductions at Military Hospitals Have Increased CHAMPUS Costs (GAO/HRD-89-47, July 10, 1989)**

The first priority of military hospitals is to treat active duty members. When space, staff, and other resources are available, however, they also care for military retirees and dependents. For outpatient care, these beneficiaries can choose between military facilities and civilian hospitals and physicians under Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). The amount and cost of care provided under CHAMPUS have increased in part because the amount of care provided to beneficiaries at military facilities has declined. Other reasons for CHAMPUS cost increases include increases (1) overall in the cost of providing medical care, (2) in the number of military beneficiaries, and (3) in the rate at which they utilize the medical care system. DOD has initiated several actions designed to increase the availability of services at military facilities and reduce CHAMPUS costs. These initiatives, however, have not been in operation long enough to determine their impact.

DOD Health Care: Issues Involving Military Nurse Specialists (GAO/HRD-89-20, Mar. 29, 1989)*

Various private sector nursing organizations had expressed concern that military nurse specialists--nurse anesthetists, nurse midwives, and nurse practitioners--are not being granted the administrative and clinical responsibilities that their training justifies. Nurse specialists are individually privileged or authorized to perform specific functions (e.g., initiate, alter, or terminate medical care regimens) within established medical protocols and service guidelines. As matter of practice, however, DOD physicians are ultimately responsible for the care provided to patients in military treatment facilities. For this reason, a health care provider who is not a physician may not practice totally independent of a physician. Other issues raised involved military nurse specialists' promotions and their input to DOD policy. According to DOD officials, nurse specialists who are promoted to the rank of lieutenant colonel (Army and Air Force) or commander (Navy) and higher ranks may be required to assume supervisory or management responsibilities. In most instances, however, they will also continue to do clinical work within their specialties. Concerning input to policy, according to most specialty advisers, their input is solicited and used by the services but less so in DOD.

DOD Health Care: Occurrence Screen Program Undergoing Changes, but Weaknesses Still Exist (GAO/HRD-89-36, Jan. 5, 1989)*

Occurrence screening is one of several elements in the DOD's hospital quality assurance program. It involves a review of patient records by trained personnel who use designated criteria to identify occurrences that represent deviations from normal procedures or expected outcomes. Examples include a patient who had a drug or transfusion reaction or was unexpectedly returned to an operating room after initial surgery. Substantial numbers of occurrences were not being identified during the initial screening process. DOD's recent policy changes were designed to improve the utility of the program at the hospital level and were needed to achieve greater acceptance of the program by the hospitals. The extent to which these changes help to improve individual hospitals' programs will depend on how the hospitals and services design and implement their programs within the revised policy framework.

DOD Health Care: Extent to Which Military Physicians Perform Administrative Tasks (GAO/HRD-89-53, Feb. 13, 1989)*

Concern was raised that military physicians were spending time performing office management tasks, such as answering phones and typing documents, that would be better spent providing medical care. There is general agreement within DOD and the military services that physicians are performing clerical and administrative tasks and that this detracts from their clinical practice time and adversely affects their productivity. Although the full extent of the administrative support problem and its effects are unknown, DOD health care professionals agree that it is a serious matter requiring priority attention. Each service has initiated or planned various actions to address this issue, but the impact of these actions may not be felt for a long time.

FISCAL YEAR 1989 TESTIMONY RELATING TO ISSUES AFFECTING THE ELDERLY

GAO testified 26 times before congressional committees during fiscal year 1989 on issues relating to older Americans. We testified 11 times on income security issues, 10 times on health issues, twice on social service issues, twice on veterans issues, and once on housing issues related to the elderly.

HEALTH

Federal Employees Health Benefits Program, by Bernard L. Ungar, General Government Division, before the Subcommittee on Compensation and Employee Benefits, House Committee on Post Office and Civil Service (GAO/T-GGD-89-26, May 24, 1989).

Insufficient Assurances That Board and Care Residents' Needs Are Being Identified and Met, by Janet L. Shikles, Human Resources Division, before the Senate Special Committee on Aging (GAO/T-HRD-89-9, Mar. 9, 1989).

Medicare: Cutting Payment Safeguards Will Increase Program Costs, by Michael Zimmerman, Human Resources Division, before the Subcommittee on Labor, Health and Human Services, and Education, Senate Committee on Appropriations (GAO/T-HRD-89-6, Feb. 28, 1989).

Medicare: GAO Views On the Payment System For Outpatient Cataract Surgery, by Michael Zimmerman, Human Resources Division, before the Subcommittee on Health, House Committee on Ways and Means (GAO/T-HRD-89-16, Apr. 10, 1989).

Medicare: Indirect Medical Education Payments Too High, by Michael Zimmerman, Human Resources Division, before the Subcommittee on Health, House Committee on Ways and Means (GAO/T-HRD-89-14, Apr. 11, 1989).

Medicare: Physician Incentive Payments by Prepaid Health Plans Could Lower Quality of Care, by Sarah F. Jaggar, Human Resources Division, before the Subcommittee on Health, House Committee on Ways and Means (GAO/T-HRD-89-19, Apr. 25, 1989).

Medicare: Referring Physicians' Ownership of Laboratories and Imaging Centers, by Michael Zimmerman, Human Resources Division, before the Subcommittee on Health, House Committee on Ways and Means (GAO/T-HRD-89-24, June 1, 1989).

Medicare: Referring Physicians' Ownership of Laboratories and Imaging Centers, by Michael Zimmerman, Human Resources Division, before the Subcommittee on Health and Environment, House Committee on Energy and Commerce (GAO/T-HRD-89-26, June 8, 1989).

Medigap: Insurance Effects of the Catastrophic Coverage Act of 1988 on Future Benefits, by Michael Zimmerman, Human Resources Division, before the Senate Committee on Finance (GAO/T-HRD-89-22, June 1, 1989).

Medigap Insurance. Effects of the Catastrophic Coverage Act of 1988 on Benefits and Premiums, by Michael Zimmerman, Human Resources Division, before the Subcommittee on Commerce, Consumer Protection, and Competitiveness, House Committee on Energy and Commerce (GAO/T-HRD-89-13, Apr. 6, 1989).

HOUSING

GAO Audits of Accounting and Financial Management Systems at the Federal Housing Administration, by Charles A. Bowsher, Comptroller General of the United States, before the Subcommittee on Housing and Urban Affairs, Senate Committee on Banking, Housing and Urban Affairs (GAO/T-AFMD-89-13, Aug. 2, 1989).

INCOME SECURITY

Age Discrimination: Use of ADEA Waivers by Large Corporations, by Joseph F. Delfico, Human Resources Division, before the Subcommittee on Labor, Senate Committee on Labor and Human Resources (GAO/T-HRD-89-11, Mar. 16, 1989).

Employee Benefits: Companies' Retiree Health Liabilities Large, Even With Medicare Catastrophic Insurance Savings, by Lawrence H. Thompson, Human Resources Division, before the Subcommittee on Oversight, House Committee on Ways and Means (GAO/T-HRD-89-29, June 14, 1989).

Federal Employees Health Benefits Program, by Bernard L. Ungar, General Government Division, before the Subcommittee on Compensation and Employee Benefits, House Committee on Post Office and Civil Service (GAO/T-GGD-89-26, May 24, 1989).

GAO's Views on H.R. 791, A Bill to Establish the Social Security Administration As an Independent Agency, by Joseph F. Delfico, Human Resources Division, before the Subcommittee on Social Security, House Committee on Ways and Means (GAO/T-HRD-89-7, Mar. 1, 1989).

GAO's Views on an Independent Social Security Administration and the Personal Earnings and Benefit Statement, by Joseph F. Delfico, Human Resources Division, before the Subcommittee on Social Security and Family Policy, Senate Committee on Finance (GAO/T-HRD-89-23, June 2, 1989).

H.R. 2514: Federal Retirement Thrift Savings Plan, by Bernard L. Ungar, General Government Division, before the Subcommittee on Compensation and Employee Benefits, House Committee on Post Office and Civil Service (GAO/T-GGD-89-35, July 25, 1989).

Pension Plans and Leveraged Buy-Outs, by Joseph F. Delfico, Human Resources Division, before the Subcommittee on Oversight, House Committee on Ways and Means (GAO/T-HRD-89-20, Apr. 27, 1989).

Pension Plan Participation in Leveraged Buyout Funds, by Joseph F. Delfico, Human Resources Division, before the Subcommittee on Labor-Management Relations, House Committee on Education and Labor (GAO/T-HRD-89-5, Feb. 9, 1989).

Social Security Administration's System Modernization Plan, by Michael Zimmerman, Information Management and Technology Division, before the Subcommittee on Social Security, House Committee on Ways and Means (GAO/T-IMTEC-89-11, Sept. 28, 1989).

Social Security Administration--The First 6 Months of 800 Phone Service, by Joseph F. Delfico, Human Resources Division, before the Senate Special Committee on Aging (GAO/T-HRD-89-15, Apr. 10, 1989).

The Social Security Notch Issue, by Joseph F. Delfico, Human Resources Division, before the Subcommittee on Social Security and Family Policy, Senate Committee on Finance (GAO/T-HRD-89-2, Jan. 23, 1989).

SOCIAL SERVICES

GAO's Cost Estimate of the Family and Medical Leave Act of 1989 (H.R. 770), by William J. Gainer, Human Resources Division, before the Subcommittee on Labor-Management Relations, House Committee on Education and Labor (GAO/T-HRD-89-4, Feb. 7, 1989).

GAO's Cost Estimate of the Family and Medical Leave Act Proposal, by William J. Gainer, Human Resources Division, before the Subcommittee on Children, Families, Drugs, and Alcoholism, Senate Committee on Labor and Human Resources (GAO/T-HRD-89-3, Feb. 2, 1989).

VETERANS

Implementation of the CHAMPUS Reform Initiative, by David P. Baine, Human Resources Division, before the Subcommittee on Military Personnel and Compensation, House Committee on Armed Services (GAO/T-HRD-89-17, Apr. 18, 1989).

Implementation of the CHAMPUS Reform Initiative, by David P. Baine, Human Resources Division, before the Subcommittee on Manpower and Personnel, Senate Committee on Armed Services (GAO/T-HRD-89-25, June 5, 1989).

ONGOING WORK AS OF SEPTEMBER 30, 1989, RELATING TO ISSUES AFFECTING THE ELDERLY

At the end of fiscal year 1989, GAO had 114 ongoing jobs that were directed primarily at the elderly, or had older Americans as one of several target groups. Of these, 48 were on health issues, 31 on income security issues, 20 on veterans' issues, 11 on social and other services, 3 on housing issues, and 1 on other issues. One asterisk after the title indicates that the activity was requested by Committees or Members of Congress. Two asterisks indicate that the work was mandated by statute.

Further information on these studies is available from the following: Joseph F. Delfico, 275-6193, Director, Income Security Programs, for income security and veterans issues; Janet Shikles, 275-5451, Director, Public and National Health Issues for general health issues; David P. Baine, 275-6027, Director, Federal Health Care Delivery Issues, for Department of Defense and veterans' health studies; Linda Morra, 275-1665, Director, Intergovernmental Issues and Management, for social and other service issues; John Ols, 275-5525, Director, Housing and Community Development Issues, for housing studies; Robin Nazarro, 275-3198, Issue Area Coordinator, Information Management and Technology, for ADP studies; Kay Drake, 275-9422, Issue Area Planner, Accounting and Financial Management Division, for financial studies. For studies followed by a "+," contact Carl E. Wisler, 275-1854, Director, Planning and Reporting, Program Evaluation and Methodology Division.

HEALTH

Alternatives to the Current Method of Computing Beneficiary Coinsurance for Outpatient Surgery*

Analysis of Initiatives to Increase Provider Participation in Medicaid

Analysis of Medicare's Automated Data Processing System*

Assessing PRO Review of Ambulatory Surgery Under Medicare by Analyzing Patient-Reported Outcomes--Development and Testing of a Patient Survey Instrument* +

Characteristics of the Uninsured in Michigan and Other Selected States

Comparative Analysis of Hospital Costs and Revenues*

Costs of Home Dialysis When Paid on a Reasonable Charge Versus Prospective Rate Basis*

Effects on Medicare and Beneficiary Costs of Implementation of Durable Medical Equipment Fee Schedule**

Evaluating the Relative Effectiveness of Alternative Medical Review Protocols* +

Evaluation of Impact of Medicare Secondary Payer Provisions on Disabled Beneficiaries**

Evaluation of the Existing Hospital Cost Reporting System and the Costs and Benefits of the Reporting System Developed in the Required Demonstration Project**

FDA's System and Procedures for Assuring the Safety and Effectiveness of Medical Devices* +

Identification of Characteristics of Rural Hospitals Vulnerable to Closure and Impact of Loss of Services on Community and Federal Reimbursement Systems*

Identification of Federal, State, and Hospital-Specific Programs/Strategies Addressing Problems for Rural Hospitals*

Identifying Goals and Information Needs for Effective Health Care Decisions* +

Impact of Applying Home Health Cost Limits by Discipline**

Impact of Changes in the Medicare Part B Appeals Process*

Impact of Uncompensated Care and Changes in the Nature of Emergency Patient Loads on Major Urban Area Hospitals*

Medicare Carriers and PROs and State Medicaid Agencies Need to Exchange Information on Problem Providers

Medicare Reimbursements for Conventional Eyeglasses Following Cataract Surgery*

Medigap Insurance and Employer Maintenance-of-Effort Actions Under Medicare Catastrophic Coverage*

Quality Assurance Issues in Expanding Health Coverage** +

Quality Assurance Under Arizona's Long Term Care Medicaid Demonstration Project*

Quality of Care of Screening Mammography in Different Settings

Review of Denials by Medicare Intermediaries of Home Health Care Claims*

Review of HCFA Oversight of State Income Eligibility Verification System

Review of Home Health Agency certification including the OBRA 1987 Changes*

Review Implementation of Medicare Insured Group Demonstration Projects**

Review of Independent Clinical Laboratories' Profits under the Medicare Fee Schedule**

Review of Legislative History of the Current Medicare Reimbursement Methodology for Risk-Based HMOs*

Review of Medicaid-Funded HMOs in the Chicago Area*

Review of Medicare Payments to Anesthesiologists**

Review of Medicare's Professional Review Organization Program for Health Maintenance Organizations*

Review of Methodological Soundness and Technical Adequacy of Clinical Trials Performed in Connection with Drug Applications Submitted to FDA* +

Review of Quality Assurance Requirements and Practices for Health Care Delivered in Nonhospital Settings*

Review of the Appropriateness of Medicare Payments for Durable Medical Equipment*

Statistics on the Medicare Part B Administrative Law Judge Hearings Process

Survey of Alternatives for Increasing Access to Nursing Homes for Medicaid Beneficiaries*

Survey of Cost and Use of Contracting with Noncertified Nursing Agencies to Provide Medicare Home Health Services*

Survey of Drug Acquisition Costs and Overhead Costs of Retail Pharmacies**

Survey of Effects of Employer and Insurer Health Insurance Coverage Initiatives on Employees*

Survey of FDA's Drug-Application Processing Systems

Survey of Medicaid Third Party Recovery Issues

Survey of Medicare's HMO Rate Setting Methodology**

Survey of Recoveries in Michigan for Services Covered by Private Insurers*

Survey of the Paperwork Requirements Associated with Medicare Claims*

Survey of Transfer Problems Associated with the Expanded Skilled Nursing Facility Benefit Under the Medicare Catastrophic Coverage Act of 1988**

Survey of Wholesale Pricing Practices of Prescription Drug Manufacturers*

HOUSING

Evaluation of Processing Delays in the Section 202 Elderly Housing Program*

Review of the Elderly's Use of Housing Vouchers as Compared With Other Forms of Assisted Housing*

Review of the Chronically Mentally Ill in Public Housing and Their Impact on Elderly Tenants*

INCOME SECURITY

America's Underclass: Size, Causes, and Cures

Benefit Distribution in Small and Large Employers' Pension Plans**

Comparing Vesting Status Under Top-Heavy and Tax Reform Act of 1986 Rules and Analysis of Impact of Top-Heavy Minimum Benefit and Contribution Rules**

Demographic and Economic Characteristics of Social Security Disability Program Participants: Observations and Policy Implications*

Effect of Tax Reform Rules on Workers' Pension Benefits

Effects on Social Security, Unemployment Insurance, and Federal Budget of Misclassifying Employees as Independent Contractors

Effects of Tax Reform Rules on Workers' Pension Benefits**

Evaluation of Staffing and Productivity Issues Involving SSA's Office of Hearings and Appeals*

IRS Enforcement of the Employee Retirement Income Security Act of 1974

Leveraged Buy-Outs' Effect on Pension Benefit Security*

Offsetting Excise Tax Rates for a Small Sample of Pension Plan Sponsors Who Terminated Overfunded Plans for Reversions*

Review of Employers' Implementation of Retirement Equity Act's Rules on Survivor Pension Plan Benefits*

Review of the Extent that Employers Provide Retiree Health Benefits*

Review of the Extent that Private Employers Provide Retiree Health Benefits Through Multiemployer Plans*

Social Security Independence--Effectiveness of Board Leadership*

Some Provisions in Retiree Health Plans Overlap Provisions in the Medicare Catastrophic Coverage Act of 1988*

SSA/IRS Cooperative Efforts to Resolve Uncredited Earnings Cases*

Study of Tenant Income Reporting and Verification in HUD Assisted Housing*

Survey of Black Lung Benefits Program

Survey of Employee Stock Ownership Plans as a Defense Against Corporate Takeovers

Survey of Feasibility of Enhancing SSA's Enumeration Verification System to Detect Dual Welfare Benefit Claims

Survey of Improvements Needed in SSA Debt Management Systems

Survey of SSA Death Notice Procedures

Survey of the Accuracy of the Answers Provided via SSA's 800 Telephone Service*

Survey of the Activities of the Social Security Protection Bureau*

Survey of the Nature and Extent of SSA Outreach Activities*

Survey of the Pension Benefit Guaranty Corporation's Benefit Approval Process*

Tax-Recapture from the 15-Percent Excise Tax on Pension Assets Reverting to Plan Sponsors

Testimony on Nonqualified Deferred Compensation Provisions of the Tax Code as Related to Collecting Social Security Taxes*

The Results of SSA's Efforts to Telephone Employers to Resolve Wage Reporting Errors*

What Are the Alternatives to the Combined Annual Wage Reporting Process?

SOCIAL AND OTHER SERVICES

Americans with Disabilities Act

An Analysis of Alternative Methods for Defining a Household Within the Food Stamp Program

BEST COPY AVAILABLE

Elderly Community Services*

Food and Nutrition Problems on Indian Reservations

Implementation of Commodity Distribution Reform Provisions

Review of the General Management of HHS

Review of Intrastate Funding Formulas Used to Distribute Title III Older Americans Act Funds*

Review of Internal Control Weakness Associated with Food Stamp Issuance and Redemption

Review of IRS's Implementation of Its Integrated Test Call Survey System

State In-Home Services for the Elderly*

Survey of Low Income Home Energy Assistance Program Block Grant*

VETERANS

Effect of Staffing Shortages on VA's Budget and Health Care Delivery

Evaluation of VA's Program for Homeless Chronically Mentally Ill Veterans*

Evaluation of VA's Processing of Appealed Benefit Claims*

Evaluation of VA's Estimates of the Demand for and Supply of Nursing Home Beds*

Evaluation of VA's Implementation of Public Law 99-272 to Identify and Collect Medical Care Costs from Private Health Insurers*

Examination of the Financial Statements of the VA for Fiscal Year 1989

Financial Management Review of the VA

HCFA's and Joint Commission on Accreditation of Health Care Organizations Efforts to Assure Hospitals Meet Medicare's Requirements*

How Does VA Assure That Veterans in Its Psychiatric Facilities Receive Quality Care?

Monitoring of VA Mortality Study Follow-up*

Quality of Care Issues Raised by Nurses at VA's Albuquerque Medical Center*

Recovery of Copayments from Veterans Receiving Medical Care and VA Facilities*

Review of HCFA's Process for Validating the Joint Commission on Accreditation of Health Care Organizations Accreditation of U.S. Hospitals Receiving Medicare Benefits

Review of Staffing and Use of Resources at Military Hospitals*

Review of VA's Ability to Assess the Quality of Care Provided in State Veterans' Homes*

Study of the VA's Infection Control Program*

Survey of Medical Reports Used for VA Disability Compensation Eligibility Determinations*

Survey of Medical Technicians Acting as Providers in DOD Outpatient Treatment Facilities

Survey of the Present Supply of Nurses in U.S. Labor Force and Effect of Permanent and Temporary Foreign Nurses*

Termination of VA Benefits to Deceased Beneficiaries

OTHER

FAA's Age 60 Rule for Commercial Pilots

OTHER FISCAL YEAR 1989 ACTIVITIES BY GAO OFFICIALS RELATING TO ISSUES AFFECTING THE ELDERLY

During fiscal year 1989, GAO officials spoke or published 39 times on issues relating to aging: 18 times on health, 17 times on income security issues, twice on social services, once on housing, and once on age discrimination. Specifically, we gave 22 papers, published 7 articles and chapters in books, participated in 6 panels, and were interviewed on 4 radio and television programs.

HEALTH

Mary Brecht, Human Resources Division, spoke on "National Health Policy Issues: Impact on Nursing," at the annual meeting of the Association of State and Territorial Directors of Nursing, Honolulu, April 25, 1989.

James Cantwell, Human Resources Division, discussed "Medicare and HMOs: What Have We Learned From Five Years of Research?" at the meeting of the American Public Health Association, Boston, November 16-17, 1988.

Mary Ann Curran, Human Resources Division, discussed GAO's reviews of actions by the Health Care Financing Administration and the Joint Commission on the Accreditation of Healthcare Organizations to assure quality of care in hospitals, at the annual meeting of the Association of Health Facility Licensing and Certification Directors, Orlando, Florida, October 13, 1989.

Terry Davis, Human Resources Division, spoke on GAO's use of national health data bases in its reviews of Medicare payment policies, at a data base users conference sponsored by the Health Care Financing Administration, in Baltimore, June 15, 1989.

Linda Demlo, Program Evaluation and Methodology Division, discussed implications for research and policy at a conference on "Measuring Health Care Effectiveness: The Use of Large Data Sets for Technology Assessment and Quality Assessment," sponsored by the International Society for Technology Assessment in Health Care, Washington, D.C., September 8, 1989.

Gerald Dillingham and James Solomon, Program Evaluation and Methodology Division, are coauthors of the article, "Medicare's Outpatient Prescription Drug Benefit," in the winter 1989 issue of the Pride Institute of Long-Term Health Care.

Darryl Dutton and David Lewis, Los Angeles Regional Office, spoke on GAO's mission and responsibilities and its reviews of health related issues, before the Institute of Internal Auditors, in Los Angeles, January 24, 1989.

Mitchell Karpman and Timothy Armstrong, Program Evaluation and Methodology Division, presented a paper, "The Relationship Between Health Status, Social Support, and Health Beliefs on Physical Activity in the Healthy Elderly," at the annual meeting of the American Public Health Association, Boston, November 16, 1988.

Susan Labin, Program Evaluation and Methodology Division, discussed GAO's briefing report, Medicare: Catastrophic Illness Insurance, (GAO/PEMD-87-21BR, July 30, 1987), and state catastrophic illness programs, before the American Sociological Association, Atlanta, August 25, 1988.

Marsha Lillie-Blanton, Human Resources Division, spoke on

- -- "Medicare and Medicaid Program Barriers in Meeting Minority Health Care Needs," before the First National Conference on Access and Health Care Financing Alternatives for Minorities, sponsored by HHS's Office of Minority Health, Washington, D.C., September 11, 1989.
- -- "Rural Hospital Closures" before the Comptroller General's Health Advisory Committee, Washington, D.C., May 17, 1989.

Sushil Sharma, Program Evaluation and Methodology Division, is author of a chapter, "Attritions in the Baltimore Longitudinal Study of Aging During the First Twenty Years," in the text Special Research Methods for Gerontology.

Janet Shikles, Human Resources Division, was interviewed on GAO's report, Board and Care: Insufficient Assurances That Residents' Needs Are Identified and Met (GAO/HRD-89-50, Feb. 10, 1989), by WWJ radio, Detroit, April 12, 1989.

Sheila Smythe, Human Resources Division:

- -- spoke on "Shaping a System for Universal Access to Health Care," before the annual conference of the Task Force on Life and the Law, New York, May 15, 1989.
- -- participated in a panel on "Changes in the Health Care System: Implications for Government." 50th national conference of the American Society for Public Administration, in Miami, April 8-12, 1989.
- -- participated in a panel on "Health Care--Quality, Access, and Cost--and the Value of Caring," sponsored by the University of Colorado and the Rocky Mountain Health Care Corporation, Denver, October 27, 1989.

Elizabeth Wennar and Marsha Lillie-Blanton, Human Resources Division, spoke on GAO's reviews of issues affecting rural hospitals, before the annual meeting of the Rural Health Research Centers, sponsored by the Office of Rural Health Policy, Rockville, Maryland, May 22, 1989.

Fred Wiener and Karyn Bell, Chicago Regional Office, discussed rural hospital closures and the impact on access to care, before the Illinois Governor's Health Care Summit on Medicaid Reform, Chicago, May 19, 1989.

HOUSING

Mark Rom, Program Evaluation and Methodology Division, presented a paper, "Federalism, Welfare Policy, and Residential Choice," at the Association for Public Policy Analysis and Management's national research conference, Seattle, October 27-29, 1988.

INCOME SECURITY

Joseph F. Delfico, Human Resources Division:

- -- discussed "Social Security and the Deficit," before students and faculty of the Master of Public Administration program at the Rio Pedras campus of the University of Puerto Rico, April 20, 1989.
- -- spoke on "Financing Retiree Health Plans," before the Washington Journalism Center, Washington, D.C., January 26, 1989.

Burma Klein, Human Resources Division, discussed GAO's testimony, Future Security of Retiree Health Benefits in Question (GAO/T-

HRD-88-30, Sept. 15, 1988), at a policy forum sponsored by the Employee Benefits Research Institute, Washington, D.C., October 5, 1988.

Daniel McCafferty, Cincinnati Regional Office, spoke on GAO reviews of the disability review process, before the regional conference of the National Association of Disability Examiners, Columbus, Ohio, May 5, 1989.

Cynthia Maher, Human Resources Division, participated in a round table discussion on "Company Actions to Limit Retiree Health Costs," before AARP's National Legislative Council, Dearborn, Michigan, August 2, 1989.

Donald Snyder, Human Resources Division:

-- spoke on "Retiree Health Benefits: More Costly Than Pensions?" at the 1989 Health Care Compliance Conference, Chicago, September 18, 1989.

-- is the author of a chapter, "Measuring Corporate Liabilities," in the Bureau of National Affairs' publication, *Retiree Benefits: The Complete Guide to FASB Compliance & Health Care Cost Control*.

-- discussed "The Funding Dilemma," at a conference on the retiree health care crisis, sponsored by the University of California, Los Angeles, Institute of Industrial Relations, January 23, 1989.

-- is the author of an article, "A Data Base with Income and Assets of New Retirees by Race and Hispanic Origin," published in the spring 1989 *Review of Black Political Economy*.

-- is the author of an article, "The Benefits and the Costs," published in *Institutional Investor's*, July 1989 Retiree Health Benefits Forum.

Lawrence H. Thompson, Human Resources Division:

-- participated in a panel on "Can We Afford to Age?" in "FutureView: The 1990s and Beyond," the sixth general assembly of the World Future Society, Washington, D.C., July 16-20, 1989.

-- discussed legislation to put Social Security on an off-budget status, on a call-in television program, "Ask Senator Heinz," carried on cable TV systems throughout Pennsylvania, April 18, 1989.

-- discussed GAO's report, *Social Security: The Trust Fund Reserve Accumulation, the Economy, and the Federal Budget (GAO/HRD-89-44, Jan. 19, 1989)*, on a call-in radio show on WARM, Wilkes-Barre, Pennsylvania; and was interviewed by CBS radio news, Detroit.

-- participated in a panel discussion on "Should Accrual Accounting Be Used to Recognize Federal Retirement Costs?" in the American Association for Budget and Program Analysis fall symposium on "Good Budgeting Is Good Government," Washington, D.C., November 3, 1988.

-- was interviewed for CNN's nightly business news program on the unfunded liability for retirees' health benefits, September 15, 1988.

-- spoke on retiree health liabilities in the session "Issues in Employer Health Benefits" of The Foundation of Health Services Research, Chicago, June 19, 1989.

Mark Rom, Program Evaluation and Methodology Division, authored "The Family Support Act of 1988: Federalism, Developmental Policy, and Welfare Reform," *Publius*, Summer 1989, and coauthor of "Federalism, Welfare Reform, and Residential Choice," in the fall 1989 *American Political Science Review*.

SOCIAL SERVICES

Deborah Ritt and Carolyn Boyce, Resources, Community and Economic Development Division, moderated panels on food and nutrition on Indian reservations and conducted focus group discussions with Indian recipients of federal food assistance at the Fort Berthold, Navajo, Pine Ridge, and White Earth Reservations during June and July 1989.

Ben Ross, Human Resources Division, and Peter Plumeau, Albany Sub-Office, discussed GAO's review of support services for the homeless mentally ill, before the National Association of State Mental Health Program Directors, Arlington, Virginia, December 13, 1988.

OTHER

Linda Morra, Human Resources Division, spoke on "The Quality of EEOC and State Agencies' Investigations of Employment Discrimination Charges," before faculty and students at the Mayaguez campus of the University of Puerto Rico, April 25, 1989.

GAO ACTIVITIES AFFECTING THE ELDERLY

GAO appointed 725 persons to permanent and temporary positions during fiscal year 1989, of whom 123 (17 percent) were age 40 and older. Of GAO's total work force of 5,627 on September 30, 1989, 3,095 (55 percent) were age 40 and older.

GAO employment policies prohibit discrimination based on age. GAO's Civil Rights Office continues to (1) provide information and advice and (2) process complaints involving allegations of age discrimination.

GAO continues to provide individual retirement counseling and preretirement seminars for employees nearing retirement. The counseling and seminars are intended to assist employees in

-- calculating retirement income available through the Civil Service and Social Security systems and understanding options involving age, grade, and years of service;

-- understanding health insurance and survivor benefit plans;

-- acquiring information helpful in planning a realistic budget based on income, tax obligations, and benefits, and making decisions concerning legal matters;

-- gaining insights and perspectives concerning adjustments to retirement;

-- increasing awareness of community resources that deal with preretirement planning, second career opportunities, and financial planning; and

-- increasing awareness of lifestyle options available during the transition from work to retirement.

MAJOR CONTRIBUTORS TO THIS REPORT

HUMAN RESOURCES DIVISION, WASHINGTON, D.C.

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Eleanor L. Johnson, Evaluator-in-Charge

ITEM 22. LEGAL SERVICES CORPORATION

JANUARY 10, 1990.

DEAR MR. CHAIRMAN: Thank you for the opportunity to provide the Special Committee on Aging with information regarding the Legal Services Corporation's activities related to meeting the legal needs of older Americans.

I hope that the enclosed material is useful to those who will be using your Committee's publication.

Sincerely,

KENNETH BOEHM,
Director, Office of Policy
Development and Communications.

THE LEGAL SERVICES CORPORATION ADDRESSING OLDER AMERICAN'S LEGAL NEEDS

The Legal Services Corporation (LSC) was created by Congress in 1974 to help provide legal assistance to the poor in civil matters. LSC is responsible for the administration of awarding grant money to local community legal services offices throughout the country. These local offices, in turn, hire advocates to provide day-to-day legal assistance to the poor. Each legal services office follows certain guidelines as to the types of cases it accepts and the financial eligibility of possible clients.

During 1989, Congress appropriated over $308 million to provide legal assistance to the poor through LSC. The approximately 324 regularly funded LSC grantees, throughout the country, maintain over 1,150 local offices, staffed by over 6,380 advocates (attorneys and paralegals). These advocates were responsible for closing 1,396,796 cases nationally, during 1988. Approximatley 13 percent of those clients were over age 60.

While LSC provides the majority of funding for these services, additional income sources, such as other federal funds, state and local grants, and Interest on Lawyer Trust Accounts (IOLTA) programs, continue to provide significant resources. These additional funds for LSC grantees totaled over $129 million during 1988. Of this amount, over $11 million alone was provided by the Federal Goverment through the Older Americans Act, to provide services for senior citizens. Additional funding from private sources continues to climb each year with IOLTA funding leading the way in growth.

In addition to the funding of local legal services providers, LSC also funded or administered a variety of other major programs which increased the provisions of legal services to older Americans. These programs included the 1988-89 and 1989-90 Law School Civil Clinical Programs, the National Senior Citizen's Law Center, and Legal Counsel for the Elderly. This report will give an overview of those programs.

1988-89 LAW SCHOOL CIVIL CLINICAL PROGRAM

For the academic year 1988-89, LSC funded a total of 26 law school clinics. Eight of those schools concentrated their efforts throughout the year in assisting elderly clients.

University of Denver School of Law.—The Univeristy of Denver received $50,000 to broaden outreach efforts to disadvantaged elderly clients from the Denver, Colorado area in consumer, housing, family, public benefits, health care, insurance, and wills.

Indiana University at Indianapolis School of Law.—Indiana University chose to combine grants from LSC and the Department of Education to expand services to the elderly who suffer from disabling illnesses. Particular emphasis for the LSC grant of $20,604, is to expand supporting services to deal with Medicare, Medicaid, medical insurance, nursing home and home health care legal services.

Gonzaga University School of Law, University Legal Assistance.—Gonzaga University chose to target senior citizens as one of three primary focus groups for legal services to be provided under its $48,349 grant. The grant funds enabled student interns to expand administrative agency and housing legal assistance for the elderly in Spokane, Washington.

Thurgood Marshall School of Law, Texas Southern University.—Thurgood Marshall School of Law was granted $45,110 to expand its elderly law clinic. Areas of focus included wills, taxation, public benefits, housing, and protective services. The clinic continues to emphasize preventative legal education as well as direct client service to the elderly in Houston, Texas.

Southern Illinois University at Carbondale School of Law.—Southern Illinois University, also a Title III recipient, was granted $49,448 to expand its ongoing program of providing legal assistance to the elderly in southern Illinois. The clinic will concentrate its efforts on providing services to minorities, the homebound, and nursing home residents in such areas as family law, public benefits, and adult guardianship.

Sixty Plus Law Center, Thomas M. Cooley Law School.—The Sixty Plus Law Center was granted $50,000 to continue its programs of assisting client services by the Medicare Recovery Project. The Project will assist residents of skilled nursing facilities in Michigan in appealing denials of Medicare coverage.

Columbus School of Law, The Catholic University of American.—The Columbus School of Law was granted $49,981 to continue its Advocacy for the Elderly Clinic. The clinic was founded in 1985 with a grant form the Legal Services Corporation. The clinic specializes in servicing the homebound with an emphasis on the legal problems created by physical immobility, and mental incapacity. In addition to health care issues, the clinic assists Washington, D.C. residents with the legal problems surrounding guardianship and institutionalization.

Benjamin N. Cardoza School of Law, Yeshiva University.—The Cardoza School of Law was granted $50,000 to continue delivery of legal services to the homebound and hospitalized elderly poor in New York City. The clinical program also assists other legal services providers with research, model pleadings, and memoranda on elderly issues.

1989-90 LAW SCHOOL CIVIL CLINICAL PROGRAM

For the academic year 1989-90, LSC awarded grants to a total of 19 law school clinics, five of which concentrate their efforts throughout the year in assisting elderly clients.

SUNY at Buffalo Law School.—SUNY received $53,320 to continue to fund a health law clinic for the elderly. The clinic has been recognized as a solid service delivery program which proposes to address the needs of a comparatively high number of clients. This clinic has become recognized for its expertise in Medicaid and Medicare and has educated the private bar and public agencies in these areas.

Southern Illinois University at Carbondale School of Law.—Southern Illinois University, also a Title III recipient, was granted $55,956 to continue its ongoing program of providing legal assistance to the elderly in southern Illinois. The clinic will concentrate its efforts on providing services to minorities, the homebound, and nursing home residents in such areas as family law, public benefits, and adult guardianship. Students address the legal needs of residents in 13 rural southern Illinois counties. Proposed case closure numbers are comparatively high at 700-900 cases.

Thurgood Marshall School of Law, Texas Southern University.—Thurgood Marshall School of Law was granted $35,850 to continue its elderly law clinic. Areas of focus included wills, taxation, public benefits, housing, and protective services. The clinic continues to emphasize preventative legal education as well as direct client service to the elderly in Houston, Texas.

University of Wisconsin.—The University of Wisconsin received $70,956 to start a new clinic to address health-related legal issues for nursing home residents. The clinic also intends to draw input from experts on a national level to discuss the most optimum methods for providing legal assistance to this client population.

Sixty Plus Law Center, Thomas M. Cooley Law School.—The Sixty Plus Law Center was granted $63,438 to continue its program of assisting client services by the Medicare Recovery Project. The Project will assist residents of skilled nursing facilities in Michigan in appealing denials of Medicare coverage.

NATIONAL SENIOR CITIZENS LAW CENTER

The National Senior Citizens Law Center (NSCLC), located in Washington, DC, received a grant of $589,512 for 1989. Under terms of its grant, the NSCLC provides a variety of services to its national service area. In addition to producing and distributing *Washington Weekly* and *Nursing Home Law Letter*, the center provides assistance for client cases. During 1988, the latest year for which figures are available, the Center processed approximately 3,440 requests for assistance. The Center also provides training for private attorneys, legal services lawyers, and paralegals on such topics as age discrimination, Medicaid, Medicare, long-term care, the Older American Act, pensions, Social Security/SSI, and disability. NSCLC also provides legislative and administrative representation as requested by Congressional authorities. The Center's Executive Director Burton Fretz or Board Chair Charles I. Schottland can be contacted for further information.

LEGAL COUNSEL FOR THE ELDERLY

Legal Counsel for the Elderly (LCE) azlso located in Washington, D.C., received approximately $107,012 in LSC grants during 1989. LCE provides specific outreach to the homebound and Hispanic communities of Washington, D.C. These services are generally in the areas of public benefits protection, protective services, consumer, and probate. During 1988, the latest year for which figures are available, LCE processed approximately 1,156 requests for assistance. The Program's Executive Director Wayne Moore or Board Chair Adrian L. Steele, Jr., can be contacted for further information.

ITEM 23. NATIONAL ENDOWMENT FOR THE ARTS

DECEMBER 7, 1989.

DEAR MR. CHAIRMAN: I am pleased to report to you on the fiscal year 1989 activities of the National Endowment for the Arts involving older citizens.

This year realized the implementation of the Local Programs Model Demonstration Projects for older and disabled persons. Seven grants totalling $100,000 were awarded to municipal and county art agencies for improving access to the arts for these persons in their local communities. In addition, we are developing a first-time publication about museum accessibility for older and disabled visitors in cooperation with the Institute for Museum Services and the American Association of Museums. The book should be a valuable resource for administrators of a wide variety of museums, both large and small.

In addition, our report documents how Endowment grantees conduct audience development for older adults through ticket discounts, transportation, touring to healthcare facilities and community centers, and educational outreach. Others develop programs focusing on issues related to aging or expressing the ideas and feelings of older Americans. Because the arts are lifelong professions, recipients of Arts Endowment support include many older visual, performing, and literary artists. Through such support, the Arts Endowment seeks to affect the lives of all Americans, diverse in age, culture, and interests.

Thank you for this opportunity to present the Special Committee on Aging with this documentation of the Arts Endowment's efforts to increase older Americans' participation in the arts.

Sincerely,

JOHN E. FROHNMAYER,
Chairman.

NATIONAL ENDOWMENT FOR THE ARTS SUMMARY OF ACTIVITIES RELATING TO OLDER AMERICANS FISCAL YEAR 1989

INTRODUCTION

The National Endowment for the Arts' mission is "to foster the excellence, diversity, and vitality of the arts in the United States and to help broaden the availability and appreciation of such excellence, diversity, and vitality." The arts are in every person. Art can expand the fullness of human life and it is our task to make the arts available to all. If we succeed, our society will be richer for it.

The Endowment encourages greater access to and participation in the arts, believing that exposure to artistic experiences of highest quality contributes to the quality of life for all persons, including older adults.

Through grants awarded to individuals and organizations, as well as its own programming, the Arts Endowment works to assure continued involvement of older adults as creative artists, students, volunteers, audience members, and patrons.

OFFICE FOR SPECIAL CONSTITUENCIES

Established in 1976 by the National Council on the Arts, the Office for Special Constituencies works to make the arts more available for people who are older, disabled, or living in institutions such as long-term care facilities. This office:

—Assists individuals and organizations to design arts programs that are accessible to special constituencies.

—Initiates collaborative projects with other Federal agencies to educate administrators and professionals about the benefits of arts programming for special constituencies.

—Advocates increased attention to the needs of special constituencies through Endowment Programs, and through State, regional, and national meetings that are concerned with the arts and/or special constituencies.

—Advises Endowment staff and grantees regarding program accessibility and compliance with Federal regulations.

—Develops model projects with Endowment Programs which demonstrate innovative ways to make the arts available to special constituencies.

Most significant is the Office's liaison with Endowment Programs, for the Arts Endowment rejects the notion that special or different programs should be developed for older persons. Instead, the Endowment chooses to find ways to open existing programs of high quality to all Americans.

OLDER ADULTS' THEATRE

During this decade, theatre groups by and for older people have developed across the country in a variety of settings such as senior centers, retirement communities, schools, colleges, and community and professional theatres. Many groups are primarily therapeutic or recreational in nature. Others focus on artistic quality, employ professional artistic directors, and receive funding through the Arts Endowment. For example, theatre groups that received FY 1988 support from the Arts Endowment accomplished the following:

Living Connections, in Batesville, AR, was supported by an Endowment Arts-in-Education subgrant from the Arkansas Arts Council to a local school for a 10-month residency by Donna Wallace, a theatre director and educator. Living Connections, a troupe of 10 older actors, performs at senior centers, healthcare facilities, and public schools in rural Arkansas. During the past two summers, they served two residencies at the Sheriff's Boys Ranch for abused youths where they created intergenerational plays that were performed at a community festival.

The Oldsters in Detroit, MI, received an Endowment Theatre Program grant through its sponsor, the Attic Theatre. This inner-city group began in 1977 with a CETA grant to train older actors and subsequently became Attic Theatre's outreach group that continues to present original material throughout southeastern Michigan.

Oregon Senior Theatre Ensemble, in Portland, OR, received funding from the Endowment's Expansion Arts Program to tour an original musical revue to rural communities in Oregon. This group tours extensively, having appeared throughout Oregon, northern California, Louisiana, Washington, DC, and Canada.

All three groups, composed of actors between 60-90 years old, develop their own material from cast members' real-life experiences, resulting in performances of unusual vitality and veracity. Bonnie Vorenberg, Artistic Director of Oregon Senior Theatre Ensemble and editor of *New Plays for Mature Actors*, says older performers "are at a time in their lives when they have a need to comment on life, and theatre provides that forum." Kevin Beverly found that The Oldsters have a remarkable sense of savvy, "getting right to the core of the drama. From the director's standpoint, they are a great resource, sensitive to all kinds of problems." He feels that performances by older actors are enriched by the diverse experiences of their own lives.

The primary message conveyed by theatre for older people is one of empowerment for the present and hope for the future. Vorenberg believes that her theatre gives younger people inspiration for their later years and an impetus to fulfill their own potential. This was exemplified by a 6-year boy who said, following the Ensemble's performance: "I will never worry about growing old." Donna Wallace hopes that audiences for Living Connections share her actors' "reaffirmations of life as a continuation. Aging is not an ending."

REGIONAL ACCESS SYMPOSIUM

State arts agencies' staff need encouragement and direct assistance in making their agencies more accessible, and in educating grantees on how to make programs more available to older and disabled people. Because the Special Constituencies Office has received many requests from State arts agencies for this kind of help, the Coordinator met with directors of the seven regional arts agencies to discuss convening a series of access symposiums for State arts agencies and other grantees. Members of the Mid-Atlantic Arts Foundation (representing nine States) voted unanimously to convene the first symposium on July 9-10, 1990 in Washington, DC.

The event will feature panels and workshops on model efforts by art organizations, and presentations by groups and individuals representing special constituencies. Topics will include audience development, and new technologies for accessibility. Other workshops will focus on design solutions and access training for grantees.

The conference itself will serve as a model, demonstrating ways to conduct a completely accessible meeting. The Special Constituencies Office hopes to engage other regional arts agencies in hosting similar symposiums across the country.

LOCAL PROGRAMS' MODEL DEMONSTRATION PROJECTS

The Special Constituencies Office worked with staff and the advisory panel of the Endowment's Local Programs to develop one-time guidelines for local arts agencies to create model demonstration projects which encourage greater access to arts activities for special constituents.

Through this effort, local arts agencies are encouraged to demonstrate leadership by generating incentives and supporting programs that will affect change. Specific objectives are to develop, implement and document ways to involve more older and disabled people in the arts. Emphasis is placed on integrating older adults into current arts activities rather than developing new or separate programs. Most important, older people are involved in determining accessibility needs, carrying out the project, and evaluating the results.

Local Programs awarded a total of $100,000 to local arts agencies. For example:

Bronx Council on the Arts, in Bronx, NY, will train staff at 20 senior centers and healthcare facilities to make the arts more available to visually impaired individuals. The trainers include representatives of service agencies for visually impaired persons and arts organizations, as well as space designers and artists who work with visually impaired people. At ten centers, visually impaired older people will create theatre, music, or visual arts projects as models for other senior centers.

Community Programs in the Arts and Sciences (COMPAS), in St. Paul, MN, will hire professional writers to teach creative writing seminars for older adults at ten sites around the state. Each site will organize two public readings at a community center and a healthcare facility. Local writers will coordinate writing support groups. In addition, COMPAS will help staff develop larger audiences and self-sustaining programs.

Council for the Arts in Westchester, in White Plains, NY, will provide access workshops for arts administrators representing diverse art forms. The project includes incentive grants to help them implement access plans. More than 20 arts organizations will participate in a discounted admission program for those on fixed incomes. To market the arts to older and disabled individuals, the council will develop large-type playbills, a "hot-line" using a telecommunication device for deaf individuals, and a radio broadcast calendar.

Metropolitan Arts Commission, in Portland, OR, will identify resources and research about arts accessibility, which will result in publication of: (1) 40,000 copies of a program and facility guide for older and disabled visitors; and (2) 300 copies of a marketing manual concerning older audiences. In addition, the Commission will hold a regional conference on accessibility for arts administrators. To celebrate improved access, the Commission plans an arts festival for the entire community.

Kaw Valley Arts and Humanities, in Kansas City, KS, will collaborate with Accessible Arts, Inc. and the Wyandotte Players to improve access to the arts in Wyandotte County. For example, older adults will be trained to provide individual assistance to visually impaired youth in an after-school arts program, culminating in the creation of murals at healthcare centers. Further, actors, directors, and board members at Wyandotte Players will participate in awareness training and develop a 3-year plan to make their facilities and programs more available to older and disabled persons.

Documentation of these projects will be disseminated to local arts agencies across the country by the Special Constituencies Office through its technical assistance materials, and through arts service organizations such as the National Assembly of Local Arts Agencies.

DESIGNING ENVIRONMENTS FOR PERSONS WITH ALZHEIMER'S DISEASE

During FY 1988-89, the Center for Architectural and Urban Planning Research at the University of Wisconsin in Milwaukee received grants from the Endowment's Design Arts Program to develop *Holding on to Home*, a guidebook for designers to plan environments for people with Alzheimer's disease and related dementias. Properly planned interventions, sensitive to the needs of persons with degenerative disabilities and their caregivers, can help assure more independent functioning. This project made possible the translation of principles for planning and design into prototypical designs for daycare and respite centers, group homes, and renovated long-term care facilities.

More than 1.5 million citizens have Alzheimer's disease, including 60–70 percent of all residents in long-term care centers. Degenerative disabilities such as Alzheimer's disease are not a normal result of aging. Symptoms range from impaired memory and judgment to total loss of neuromuscular functioning. Authors Uriel Cohen and Gerald D. Weisman present solutions that ensure safety and security, maximize awareness and control within one's environment, provide opportunities for socialization, and protect privacy. These design principles include non-institutional character, elimination of architectural barriers, inclusion of things from the past, sensory stimulation without stress, and opportunities for interaction with others.

For example, not only do many persons with Alzheimer's disease experience difficulties with steps due to weak muscles or stiff joints, but they often become disoriented. Consistent environmental cues can help alleviate confusion. Design solutions include making doors to residents' rooms a different color than doors used by staff, and providing uniform color coding of fixtures such as bathroom faucets and kitchen appliances (e.g., hot things red, and cool things blue).

The book is readily comprehensible and useful to both experts and laypersons. One of the first efforts to link environmental design and caring for persons with Alzheimer's disease, *Holding on to Home* will be published in 1990 by Johns Hopkins University Press.

INTERAGENCY ACTIVITIES

To extend arts accessibility as broadly as possible, the Arts Endowment collaborates with other government agencies and private organizations which share common objectives.

Museum Access Publication

An interagency agreement was developed with the Institute of Museum Services (IMS) to produce a resource guide to help museum professionals make their collections fully accessible to older and disabled people. The publication will comprise 20 case studies of exemplary programs in a variety of museums, both large and small, throughout the country with specific data sufficient for replication. An annotated bibliography will list articles, pamphlets, books, films, and videotapes about accessible programs, such as *Museums Opportunities for Older Persons*, a booklet for those who wish to serve as volunteers or staff.

This effort responds to needs expressed by museum administrators who are frustrated by low attendance of special constituencies, and by expenditures and complex undertakings beyond the scope of their small budgets and staffs. The publication may resolve some of these problems by providing examples of successful programs to emulate, as well as resources to assist in these efforts.

The Smithsonian's National Museum of American Art (NMAA) provided the initial research for the book. Working with a consumer advisory committee, NMAA developed the National Survey of Accessibility in Museums that was sent to 2,000 museums across the country; 40 percent of the museums responded. This research uncovered a broad spectrum of exciting projects to help museum professionals develop accessible programs and bring greater visibility to these issues.

On May 9, 1989, the Special Constituencies Office developed a cooperative agreement with the American Association of Museums (AAM) to produce the book. In spring of 1990, the Endowment and IMS will convene a panel to recommend the 20 museums to feature in the book. AAM will then work with the Arts Endowment to produce the book. As the major national service organization for museums with excellent marketing capability, AAM can assure broad distribution. In addition, the Arts Endowment and IMS will distribute 2,000 free copies to grantees.

Design for Aging Project

The Special Constituencies Office has a cooperative agreement with the American Institute of Architects (AIA) to update the Design for Aging computerized bibliography (as listed in *Design for Aging: An Architect's Guide*, produced by AIA with Endowment support). Researchers at the University of Michigan conducted a comprehensive search to identify and organize information published since 1978 that would be useful to architects and others working in design for aging. This research expanded the database from 100 to 4,000 citations. The AIA plans to update the database annually.

ARTS ENDOWMENT FUNDING

The Arts Endowment supports programs in the design, literary, media, performing, and visual arts that involve people of all ages. In addition, many activities funded by the Arts Endowment specifically address older Americans. The following are examples of these projects and fellowships as listed under the Arts Endowment Program providing the grant:

PROGRAM SUMMARY OF THE NATIONAL ENDOWMENT FOR THE ARTS

ARTS IN EDUCATION

Seneca Indian Historical Society, in Irving, NY, is developing a curriculum model for teaching Native American arts such as beadworking and woodcarving. Classes taught by Seneca elders at the Wolf Clan Teaching Lodge will be videotaped; elders not able to travel will be videotaped on the reservation or in their homes. Curricular materials will be published for use in Native and other schools to pass the skills of older masters on to future artists.

DANCE

Choreographers' Fellowships were awarded to six older tap dancers to assist their individual artistic growth:

Eddie Brown, Los Angeles, CA;
James Buster Brown, of New York City;
Charles C. Cook, of New York City;
Chuck Green, of New York City; and
LaVaughn E. Robinson, of Philadelphia, PA.

In addition, *Elizabeth Lerman*, of Washington DC, received a Choreographer's Fellowship for her work with The Dance Exchange, an intergenerational company.

DESIGN ARTS

Center for Architecture and Urban Planning Research, at the University of Wisconsin—Milwaukee, is developing a guide book for planning and designing environments for people with Alzheimer's disease (see full discussion under *Designing Environments for Persons with Alzheimer's Disease*).

Dorit R. Fromm, in Berkeley, CA, is completing a book about designing "collaborative communities" in which private living units are connected to shared services such as meals and health care. The manuscript (including plans, photographs, drawings, glossary, and bibliography) will examine architectural design, funding, reduction of development time, zoning, and legal requirements.

Distinguished Designer Fellowships were awarded to four older Americans:

John P. Eberhard, architect, of Bethesda, MD;
Frederick Gutheim, urban and regional planner, of Dickerson, MD;
Amos Rapoport, architect, of Milwaukee, WI; and
Raymond Spilman, industrial designer, of Darien, CT.

EXPANSION ARTS

Oregon Senior Theatre Ensemble, in Portland, OR, is a group of older performers. Some cast members have been performing since youth, whereas others began acting, singing, and dancing later in life. The company will tour five rural communities along the Oregon coast which seldom have life performances (also discussed under *Older Adults Theatre*).

Opus, in Hartford, CT, provides fee support for performances and residencies by older professional Connecticut artists in senior centers, healthcare facilities, and retirement communities. Approximately 5,000 older persons participate as students or audience members. A spring festival will showcase artwork created during the residencies.

Senior Arts, in Albuquerque, NM, will hold its sixth annual performance and workshop series for older citizens, featuring traditional Hispanic and Native American arts. Projected participation is over 3,000.

FOLK ARTS

Amana Arts Guild, in Amana, IA, developes workshops, classes, tutoring programs, and festivals to transfer artistic expression from older residents to youth of this unique rural community. Such programs preserve skills in Amana needlework, zither music, storytelling, basketry, tinsmithing, quilting, and carpetweaving for future generations.

Asian American Arts Centre, in New York City, will create video programs about Chinese folk artists, including an older mountain singer.

Friends of Pyramid Lake, in Reno, NV, is filming the life and art of Katie Frazier, a 97-year-old Paiute craftsperson and storyteller.

La Compania de Teatro de Alburquerque for Los Reyes de Alburquerque, in Albuquerque, NM, presents programs of traditional Hispanic music at 16 meal sites and nursing homes, serving 3,500–4,000 persons annually.

Laotian Handcraft Project, In Berkeley, CA, will record folk legends told by Mien elders to preserve hilltribe traditions.

National Heritage Fellowships were awarded to folk artists and performers whose works exhibit authenticity, excellence, and significance within a particular tradition. Older recipients include:

The Fairfield Four, an *a cappella* gospel group, of Nashville, TN;
Christy Hengel, concertina-maker, of New Ulm, NM;
Ilias Kementzides, lyra player, of Norwalk, CT;
Ethel Kvalheim, rosemaling painter, of Stoughten, WI;
Mabel E. Murphy, quilter, of Fulton, MO;
LaVaughn Robinson, tap dancer, of Philadelphia, PA;
Earl Scruggs, banjo player, of Flint Hill, NC; and
Harry V. Shourds, duck decoy carver, of Tuckerton, NJ.

INTER-ARTS

Interaction Arts, in New York City, will present "Angels Have Been Sent to Me," an environmental installation and performance about aging and disability by artist Jerri Allyn. The public will experience the work in specially decorated wheelchairs with built-in sound systems. The event will include a visit to a critical healthcare facility.

Krannert Center for the Performing Arts, at the University of Illinois in Urbana/Champaign, presents a wide variety of programs for older adults including special performances and education in cooperation with senior centers, healthcare residences, and social services agencies. For example, Medicare, a musical group comprised of retired facility, performed for an audience of 500. In another activity, senior volunteers, foster grandparents, and children participate in "Meet-the-Artist" programs.

LITERATURE

Community Writers' Project, in Syracuse, NY, conducts 5-week creative writing workshops, biannually, at five senior centers in rural and urban areas. Sessions are open to the public to assure intergenerational involvement. The Metropolitan Commission on Aging publishes an anthology of works written during the workshops.

Creative Writing Fellowships were awarded to four older writers for the development of new works.

Thomas Fitzsimmons, prose writer, of Rochester, NY;
Anthony E. Hecht, poet, of Washington, DC;
Donald Justice, poet, of Gainesville, FL; and
Dorothy Stroup, fiction writer, of Berkeley, CA.

Senior Fellowships were awarded to three older individuals for a lifetime of achievement as creative writers:

Gwendolyn Brooks, poet, of Chicago, IL;
Hortense Calisher, fiction writer, of New York, NY; and
Eudora Welty, fiction writer, of Jackson, MS.

MEDIA ARTS

Robin Gianattassio-Malle, of San Francisco, CA, is producing "Silver Threads: Weaving New Images of Age," a nine-part radio series featuring older women's expressions of their inner lives. Topics will include: Aging and Intimacy, Grieving, Alternative Living, and Alcohol and Other Obstacles.

MUSEUMS

Very Special Arts, of Washington, DC, sponsored "Designs for Independent Living" in Gallery Patina at the National Council on Aging. This exhibit, organized by the Museum of Modern Art, featured works such as a racing wheelchair and a fountain pen designed for individuals with limited use of their hands.

MUSIC

Bay Area Women's Philharmonic, in San Francisco, CA, provides free tickets for older women.

Berkeley Symphony Orchestra, in Berkeley, CA, offers discounted tickets for older and disabled persons.

Bronx Arts Ensemble, in Bronx, NY, performs at fourteen senior centers in the Bronx.

Canton Symphony Orchestra, in Canton, OH, presents ensemble performances and lecture/demonstrations in nursing homes and senior centers.

Dallas Symphony Orchestra, in Dallas, TX, conducts outreach programs for older and disabled audiences.

Erie Philharmonic, in Erie, PA, offers ticket discounts for older persons.

Evansville Philharmonic Orchestra, in Evansville, IN, tours an ensemble to senior centers and hospitals.

Fort Wayne Philharmonic Orchestra, in Fort Wayne, IN, sends four ensembles to senior centers and parks.

Minneapolis Chamber Symphony, in Minneapolis, MN, offers concerts in senior centers and parks.

Peoria Symphony Orchestra, in Peoria, IL, is expanding its number of performances in senior centers and healthcare residences, increasing the total audience served from 200 to 500.

Puerto Rico Symphony Orchestra, in Santurce, PR, provides discount tickets for older and disabled persons.

Rochester Civic Music, in Rochester, MN, plans special marketing and transportation to develop larger audiences of older people.

Sarah Johnson and Friends, in Charleston, SC, offers discount tickets to residents of retirement communities.

Santa Barbara Symphony, in Santa Barbara, CA, has a discounted Sunday Matinee Series for older and disabled persons.

Shreveport Symphony Society, in Shreveport, LA, presents concerts in nursing homes and retirement communities.

Jazz Fellowships were awarded to "American Jazz Masters," including two older persons:

Cecil Percival Taylor, pianist and composer, of New York, NY; and
Gerald Stanley Wilson, trumpeter, composer, and bandleader, of Los Angeles, CA.

OPERA—MUSICAL THEATRE

New Cleveland Opera Company, in Cleveland, OH, sends "Cleveland Opera on Tour" to senior centers throughout a nine-State area.

Michigan Opera Theatre, in Detroit, MI, has a touring company which performs at centers and residential communities for older adults in Michigan.

Opera America, in Washington, DC, continues its Special Constituencies Technical Assistance Program, which helps member companies make opera available to older and disabled individuals. The program includes mini-grants for accessible programming such as sign interpreted performances. Reports about each mini-grant are published in *504 Programs That Work,* a notebook which disseminates information and encourages other opera companies to develop similar efforts.

VISUAL ARTS

Visual Artists Fellowships were awarded to support the creative development of professional artists by enabling them to purchase materials and pursue their work. Older painters receiving fellowships include:

Stanley R. Boxer, of New York, NY;
Larry Calcagno, of New York, NY;
June Leaf, of New York, NY;
David W. Simpson, of Berkeley, CA;
Anne Tabachnick, of New York, NY;
Sam Tchakalian, of San Francisco, CA;
Joyce W. Treiman, of Pacific Palisades, CA; and
John M. Wesley, of New York, NY.

ITEM 24. NATIONAL ENDOWMENT FOR THE HUMANITIES

December 7, 1988.

Dear Senator Pryor: I am pleased to enclose a report summarizing the major activities for or about the aging supported by the National Endowment for the Humanities in fiscal year 1989.

Many of the projects that received Endowment support during the past year either involved older Americans as grant recipients or project contributors or were of particular interest to them. Several also specifically addressed older persons as an audience or aging as an issue. But the potential of NEH for older Americans does not stop there. The products resulting from all Endowment programs are available to older Americans for their personal enjoyment and enrichment—from the books and articles written by humanities scholars to the film and radio programs and reading and discussion groups supported by our General Programs division.

The State humanities councils have also been very active in developing programs for or about the aging, and a number of their efforts are summarized in the report. Anyone wishing further information on the State councils' activities in this area is invited to contact NEH or any one of the councils.

I hope that you and your committee will find this material useful. Please let me know if we can be of any further assistance.

Sincerely,

Lynne V. Cheney,
Chairman.

Enclosure.

NATIONAL ENDOWMENT FOR THE HUMANITIES REPORT ON ACTIVITIES AFFECTING OLDER AMERICANS IN 1989

I. The Mission of the Endowment

The National Endowment for the Humanities was established by Congress to support the advancement and dissemination of knowledge in history, literature, philosophy, and other disciplines of the humanities. NEH grants sponsor scholarship and research, promote improvements in education, and foster greater public understanding and appreciation of our cultural heritage. Grants are awarded in response to unsolicited project proposals and on the basis of evaluative judgments informed by a rigorous process of peer review. The agency does not set aside fixed sums of money for work in any discipline or for any particular area of the country or group. As a result, there is no grant program at NEH specifically for senior citizens; nor is there a funding category within the agency expressly designed to support the study of aging or the elderly. Rather, projects for or about senior citizens may receive support through the full range of Endowment programs.

Although the Endowment does not have programs specifically related to aging, NEH-supported books, lectures, exhibitions, productions for radio and television, library reading and discussion programs, and adult education courses help bring the humanities to senior citizens. In addition, each year a number of scholars, 65 or older, receive NEH funding to conduct research in the humanities, while others assist the Endowment by serving on grant review panels or as expert evaluators.

II. Participation by Older Americans in NEH Programs

Older scholars compete for Endowment support on the same basis as all other similarly qualified applicants. Applications for funding are evaluated by peer panels and specialist reviewers, Endowment staff, the National Council for the Humanities, and the NEH Chairman. Only applicants whose proposals are judged likely to result in work of exemplary quality and central significance to the humanities receive support. However, anyone may apply for an NEH grant, and no one is barred from consideration beause of age. Each year numerous projects are funded that involve older persons as primary investigators, project personnel, or consultants.

The Jefferson Lecture in the Humanities is the highest official award the Federal Government bestows for distinguished intellectual achievement in the humanities. Since its establishment in 1972, the lecture has provided an opportunity for 19 of the Nation's most highly regarded scholars to explore in a public forum matters of broad concern in the humanities. Not coincidentally, many of the scholars so honored have been among the most senior members of their profession. Bernard Lewis, who will deliver the 1990 Jefferson Lecture, Walker Percy, Robert Nisbet, and Cleanth Brooks are among the American scholars, 65 years of age or older, who have received this honor in recent years.

Older scholars are particularly evident in several types of research and teaching projects supported by the Endowment's Fellowships and Seminars division and Research Programs division. Of course, this is merely a reflection of the depth and breadth of knowledge that many senior scholars bring to their work in the humanities. In a number of cases, older scholars are receiving NEH support to continue long-term collaborative research projects that they have directed and sustained for many years. Several projects conducted by scholars, 65 years of age or older, illustrate the excellent research and teaching currently being done with NEH support by these older Americans. In FY 1989, the Endowment awarded:

—$22,750 for an NEH Fellowship that is helping independent scholar Helen Tanner to produce a history of the Caddo people on the Red River frontier in the American Southwest.

—$750 that enabled Peter Guenther, professor of art history at the University of Houston, to travel to Nuremberg in order to conduct research for a study of German Expressionism.

—$86,923 that will enable Leonard Thompson, professor of history at Yale University, to direct an NEH Summer Seminar for Colege Teachers entitled "The Political Mythology of Racism."

—$110,000 that is supporting the efforts of Frederick Burkhardt, under the auspices of the American Council of Learned Societies, to prepare an edition of the correspondence of Charles Darwin. This project, which the Endowment has supported since 1974, has resulted in the publication of three volumes.

—$125,000 that will enable Lloyd Kasten, emeritus professor of Spanish and Portuguese at the University of Wisconsin at Madison, to complete the *Dictionary of Alfonsine Prose*. At the conclusion of the grant, this long-term project will result in the publication of six volumes totalling 2,500 pages.

—$80,000 to David H. Donald, Charles Warren professor of American history at Harvard University, to support the research and writing of a biography of Abraham Lincoln. In 1961, David Donald was awarded a Pulitzer Prize for his biography, *Charles Sumner and the Coming of the Civil War*.

Older Americans also participated in NEH programs by serving as grant review panelists, specialist reviewers, or members of special advisory groups. Ellen F. North, professor of classics at Swarthmore College; John H. Fisher, John C. Hodges, professor of English at the University of Tennessee; Marjorie Kaufman, Emma B. Kennedy, professor of English at Mount Holyoke College; and David H. Pinkney, professor of history at the University of Washington are among the senior scholars who contributed their time and talent in this way during FY 1989.

In some cases, older Americans without scholarly training have contributed to Endowment-sponsored projects by providing invaluable information. For example, several NEH-supported projects to document or preserve the unique cultures of Native American peoples are heavily indebted to older tribal members for their, in many cases, irreplaceable resources of memory and understanding. In FY 1989, a total of $169,995 was awarded for two projects that are compiling dictionaries of the Hopi and Siouan native American languages. Another $56,023 was awarded for a project to collect, transcribe, translate, and annotate the oral traditions of the Tlingit, a major tribe of the Pacific Northwest.

Some of the programs for the general public that the Endowment supports also depend upon the substantive contributions of older Americans. For example, in FY 1989 the Endowment awarded $75,000 to the Museum of the City of New York for an exhibition commemorating the 50th anniversary of the 1939 New York World's Fair. A variety of educational programs is being offered in conjunction with this exhibit, including special "Senior Days" and a series of activities that will effect an intergenerational partnership between the schools and senior centers by pairing elementary-aged children with older adults.

Of course, the Endowment achieves its greatest impact among older Americans when they read books, attend public programs, or participate in educational activities made possible by an NEH grant. The humanities programs for the general public supported by the Endowment through our Division of General Programs and many of the formal learning opportunities supported through our Division of Education Programs reach large numbers of older persons.

Higher Education in the Humanities.—According to statistics released by the Department of Education, 39 percent of the students enrolled in institutions of higher education in 1986 were 25 years of age or older and 42 percent were attending classes on a part-time basis. Adults of all ages are now returning to college to take courses outside of the regular undergraduate schedule or sequence. The Endowment's Higher Education in the Humanities program offers support for institutions seeking to make humanities study more accessible to these adults, who may not be adequately served by the conventional structures of higher education. Because continuing education programs are typically offered in local communities at sites such as community colleges, high schools, or public libraries—sometimes supplemented by telecommunications hookups with an instructor at a central location—such programs are particularly well suited to the needs of older persons. As in all Endowment programs, NEH-supported projects for adult learners are intellectually substantive and thoroughly grounded in the scholarship of the humanities.

Humanities Projects in Media.—Television productions supported by the Endowment are ideal for older people who cannot or prefer not to leave their homes. Widely acclaimed programs such as the series of dramatic literary adaptations, *American Short Story* and *Life on the Mississippi*; the biographical documentary, *Huey Long*; and *Voices and Visions*, a 13-part series chronicling the achievements of America's outstanding contemporary poets, have been viewed by millions throughout the country. Or, elderly persons who have visual handicaps may find Endowment-sponsored radio programming best suits their needs. For example, the Endowment supported the broadcast over National Public Radio of five of Eugene O'Neill's plays during 1988, the centennial year of his birth. *Tell Me A Story*, NPR's long-running series of half-hour programs in which major contemporary authors read from their short stories and comment on the creative process, and the series of features on art history and criticism on NPR's daily arts program, *Performance Today*, are two more examples of outstanding radio programs that have aired recently with Endowment support.

Information about NEH-sponsored media programs is routinely provided to organizations working for special groups, including the elderly. For many elderly people confronting problems such as impaired vision, reduced mobility, and isolation, Endowment-funded media programs not only provide individual access to the humanities but can also provide the context for stimulating group activities and discussions.

Humanities Projects in Museums and Historical Organizations.—In this program, the Endowment encourages museums or historical organizations receiving Federal funding to waive entrance fees for the general public on certain days, an effort which helps make cultural programming more accessible to retired persons living on a fixed income. In recent years, a number of the institutions that have received NEH support for interpretive exhibitions have begun to establish a continuing relationship with local senior centers.

Humanities Projects in Libraries and Archives.—By sponsoring reading and discussion programs for adults in public libraries, this Endowment program is helping to make intellectually stimulating activities available to senior citizens in their local communities. For example, in FY 1989 the Southern Connecticut Library Council received $194,540 to support a series of programs in 60 libraries and at several senior centers. The participants read and discuss selected American biographies and autobiographies and reflect on contemporaneous events in American history, such as the Great Depression and World War II. In New Jersey, Stockton State College received $89,751 to produce a program of lectures, book and film discussions, and traveling photo exhibitions entitled "Women, War, and Peace: An Examination of an American Experience in the 20th Century," which considers the roles of women in the military services and in various antiwar movements. In all, the Endowment awarded $1.5 million during FY 1989 for programs that will offer older adults throughout the country an opportunity to read and talk about important books and issues, and a great many more reading and discussion programs were supported by the 53 State humanities councils.

III. EXAMPLES OF NEH GRANTS SPECIFICALLY FOR OR ABOUT OLDER AMERICANS

Since FY 1976, the Endowment has awarded approximately $3.3 million to the National Council on the Aging for its "Discovery Through the Humanities" program. Throughout a network of over 1,500 senior centers and other sites participating in this project, volunteer leaders guide small groups of senior citizens though active, in-depth discussions of the work of prose writers, poets, artist, philosophers, scholars, anc critics. Project staff prepare and distribute thematically organized anthologies and ancillary instructional materials and provide training and technical assistance to discussion leaders. The fourteen anthologies currently in use include: "A Family Album, The American Family in Literature," "Images of Aging," "Americans and the Land," "The Remembered Past, 1914–1945," "Work and Life," and "The Search for Meaning." Each anthology is designed to stimulate the group participants to relate what they read to their own experience and to universal human issues. Ranging between 100 and 300 pages in length, printed in large print type, and attractively illustrated with paintings, sculpture, and photographs, each anthologizes material from history, philosophy, and literature; both the classics and contemporary authors are represented.

In FY 1988, the National Council on the Aging received $70,935 to continue and to broaden the "Discovery Through the Humanities" program. During the Constitutional Bicentennial period of 1987–89, the program is stimulating thoughtful discussion of constitutional issues through its newly developed anthology, "The Family, The Courts and the Constitution."

During the past fiscal year, the Endowment made three other awards for projects designed to inquire into aging-related issues or to make available materials or activities of interest to the elderly:

—$3,500 for a Summer Stipend that will enable a scholar at the College of Wooster in Ohio to conduct research on concepts of old age and aging in classical Greek literature.

—$750 that has enabled an historian at Arizona State University to travel to the National Archives in order to examine documentary sources for a study of older workers in the United States, 1850–1950.

—$24,930 to the National Council on the Aging to implement a series of reading and discussion programs on railroad history that will be presented in six Western States. The programs, linked to the 1989 centennials of Washington, Idaho, North Dakota, South Dakota, Montana, and Wyoming, are being produced in collaboration with NCA-affiliated resource centers for older adults and with the six State humanities councils.

IV. STATE PROGRAMS AND THE AGING

The State Programs Division of the Endowment makes grants to humanities councils based in the 50 States, Puerto Rico, the District of Columbia, and the Virgin Islands. These councils, in turn, competitively award grants for humanities projects to institutions and organizations within each State. State humanities councils have been authorized to support any type of project that is eligible for support from the Endowment, including educational and research projects and conferences. The special emphasis State programs, however, is to make focused and coherent humanities education possible in places and by methods that are appropriate to adults.

Examples of projects for older Americans or about aging-related topics that received State council support during FY 1989 are presented below.

ARIZONA

The Arizona Humanities Council awarded a grant to fund a seminar on the ethical issues that face persons as they age: health care, values that govern life, and models for ethical decisions.

MINNESOTA

The Minnesota Humanities Commission supported a series of humanities courses for older adults that covered a wide range of humanities topics including ethics, history, ethnic studies, and the history and criticism of the arts. Faculty from area colleges and universities, many of whom have had previous experience in adult education, served as discussion leaders.

NEW HAMPSHIRE

The New Hampshire Humanities Council supported a series of programs entitled "Philosophical Discussion for Older People." Five philosophers taught a total of 10 non-credit, weekend courses at libraries and retirement homes throughout the State. Focused primarily on European and American philosophy, the courses are intended to help the participants gain further insight into their lives and philosophies.

NORTH CAROLINA

The North Carolina Humanities Council supported an effort by the University of North Carolina at Ashville's North Carolina Center for Creative Retirement to provide humanities reading-discussion programs for older adults in four rural counties. The programs are being held in conjunction with organizations such as libraries, senior centers, churches, and retirement communities.

Funded projects

Grantee: Individual, FE-23197-89, Professor Brian Gratton (Arizona State University), Tempe, AZ 85287, Cong. District: 01:

Approved date	May 1989
Start date	June 1989
End date	Nov. 30, 1989
Approved (OR)	$750
Funded (OR)	$750
Obligated	$750

Title: Older Workers in the United States, 1850-1950.

Grantee: Individual, FT-32448-89, Professor Thomas M. Falkner (College of Wooster), Wooster, OH 44691, Cong. District: 16L

Approved date	Feb. 1989
Start date	May 1989
End date	Sept. 1989
Approved (OR)	$3,500
Funded (OR)	$3,500
Obligated	$3,500

Title: Concepts of Old Age and Aging in Classical Greek Literature.

Grantee: Inst/Organiz. GP-21479-88-00-3-0, Ms. Sylvia Riggs Liroff, National Council on the Aging, Inc., Washington, DC 20024, Cong. District: 88 At large:

Approved date	August 1988
Start date	Oct. 1988
End date	Nov. 1989
Approved (OR + Match)	$153,280
Funded (OR + Match)	$153,280
Obligated	$24,930

Title: We Got There on the Train: Railroads in the Lives of the American People.

Project descriptions: To support planning for 60 scholar-led reading and discussion groups on railroad history in six western and northern states.

ITEM 25. NATIONAL SCIENCE FOUNDATION

DECEMBER 4, 1989.

DEAR MR. CHAIRMAN: Your letter of October 11, 1989, to the Director of the National Science Foundation (NSF) was referred to me since this Directorate provides most of NSF's support for research on aging.

It is a pleasure to report on the activities of NSF related to aging and the concerns of the elderly. As stated in the enclosed report, the Foundation does not have any programs directed specifically toward issues related to aging. However, basic and applied research projects having both direct and indirect bearing on this important area of national concern are supported through the Foundation's regular research grant programs. Most such projects have been supported through the Division of Emerging Engineering Technologies in NSF's Directorate for Engineering, and through the Divisions of Behavioral and Neural Sciences, and Social and Economic Science in the Directorate for Biological, Behavioral and Social Sciences.

If you would like additional information, please do not hesitate to call on me.

Sincerely,

MARY E. CLUTTER,
Assistant Director.

Enclosure.

NATIONAL SCIENCE FOUNDATION REPORT FOR DEVELOPMENTS IN AGING

The National Science Foundation, an independent agency of the Executive Branch, was established in 1950 to promote scientific progress in the United States. The Foundation fulfills this responsibility primarily by supporting basic and applied scientific research in the mathematical, physical, environmental, biological, social, behavioral, and engineering sciences, and by encouraging and supporting improvements in science and engineering education. The Foundation does not support projects in clinical medicine, the arts and humanities, business areas, or social work. The National Science Foundation does not conduct laboratory research or carry out education projects itself; rather, it provides support or assistance to grantees, typically associated with colleges and universities, who are the primary performers of the research.

The National Science Foundation is organized generally along disciplinary lines. None of its programs has a principal focus on aging-related research; although, a substantial amount of research bearing various degrees of relationship to aging and the concerns of the elderly is supported across the broad spectrum of the Foundation's research programs. Virtually all of this work falls within the purviews of the Directorate for Biological, Behavioral, and Social Sciences and the Directorate for Engineering.

DIRECTORATE FOR BIOLOGICAL, BEHAVIORAL, AND SOCIAL SCIENCES

The research projects supported by this directorate are designed to strengthen scientific understanding of biological and social phenomena. Research is supported across a spectrum ranging from the fundamental molecules of living organisms to the complex interaction of human beings and societal organizations. These projects are supported by six research divisions incorporating 26 research programs.

The Division of Behavioral and Neural Sciences supports research which is aimed at understanding the behavior of human beings and animals. To achieve this end, it uses molecular, developmental and cultural approaches while concentrating on model systems, behaving organisms, and cultures. Currently supported projects include studies of the effects of aging on the nervous systems of animals, the attempt to identify specific brain areas involved in age-related learning and memory deficits, and research on the maintenance of knowledge during the human life span. Other research on the aging process in plants and animals is supported by the Division of Biotic Systems and Resources.

The Division of Social and Economic Science focuses primarily on expanding fundamental knowledge of how social and economic systems work. Attention is centered on organizations and institutions, and how they function and change, and how human interaction and decisionmaking take place. The Division supports the collection of large sets of data, such as national surveys, that are used by many investigators, as well as the research projects of individual scientists. Most of the work supported by this division has indirect, rather than direct, relevance to aging and the concerns of the elderly. For example, the Panal Study of Income Dynamics provides information on changing household composition, labor force participation, income, assets, and consumption patterns as individual respondents grow older. The General Survey contains several attitudinal questions relevant to older persons, such as the optimal age of retirement and government's role in the care of the elderly. This survey also permits the assessment—by age and by cohort—of shifts over time in opinions generally. The final survey supported by this division is the National Election Survey, which provides information on attitudes regarding candidates and issues held by different age groups in the population at large. One additional project funded by the division during the past year is focussed on the causes of victimization, a particular problem for the elderly.

DIRECTORATE FOR ENGINEERING

The National Science Foundation's Directorate for Engineering seeks to strengthen engineering research in the United States and, as appropriate, focuses some of that research on areas relevant to national goals. This is done by supporting projects across the entire range of engineering disciplines and by identifying and supporting special areas were results are expected to have timely and topical applications.

Most aging-related research supported by this directorate is through its Bioengineering and Aiding the Disabled Program, in the Division of Biological and Critical Systems. Most of this work is indirectly related to issues of aging and the elderly—its relevance derives from the increased propensity for the elderly to develop physical disabilities. Examples of projects currently funded by this program include studies of bone and cartilage degeneration and restoration, speech recognition, and hearing as applied to a deaf/hearing telephone system, biomechanics of diarthrodial joints, autonomic control of urinary bladder and large intestine, development of an intelligent hip prosthesis, fluid dynamics of heart valves and blood vessels, and a fundamental engineering study of swallowing to aid those handicapped by dyshagia. While not specifically directed toward problems of aging, these studies have potential for dealing with conditions prevalent in old age.

ITEM 26. OFFICE OF CONSUMER AFFAIRS

DECEMBER 8, 1989.

DEAR SENATOR PRYOR: In response to your request, I have enclosed the "Report of Activities on the United States Office of Consumer Affairs During 1989 Relating to Older Americans."

My office is pleased to have the opportunity to contribute to the Committee's Annual Report on Aging. If you have questions, please call Juanita Yates of my staff at 634-4297.

Sincerely,

BONNIE GUITON,
Special Adviser to the President for Consumer Affairs, and
Director, United States Office of Consumer Affairs.

Enclosure.

REPORT OF ACTIVITIES OF THE UNITED STATES OFFICE OF CONSUMER AFFAIRS DURING 1989 RELATING TO OLDER AMERICANS

The Director of the U.S. Office of Consumer Affairs (OCA) is Bonnie Guiton, who is also Special Adviser to the President for Consumer Affairs. The President has also designated Dr. Guiton as the Chairperson of the Consumer Affairs Council, established by Executive Order 12160. Dr. Guiton directs consumer affairs activities at the Federal level. OCA provides the staff and administrative support to carry out these responsibilities.

OCA encourages and assists in the development and implementation of programs dealing with consumer issues and concerns; advises agencies with business and industry officials by encouraging the development of voluntary employment, consumer protection and information programs; serves as the focal point for the coordination and standardization of Federal complaint handling efforts; works to improve and coordinate consumer education at the local, State and Federal levels; and cooperates with state and local government agencies, and voluntary consumer and community organizations in the delivery of consumer services and information materials.

The major activities focus on voluntary mechanisms, marketplace innovations, consumer education and information, and conferences to exchange information and develop dialogs. OCA's activities also focus on helping State and local government units and consumer and community groups to deal with issues affecting consumers.

Highlighted below are major activities having the greatest impact on older Americans.

OUTREACH

The OCA Director has convened a series of meetings focusing public attention on the privacy concerns associated with consumer credit, medical, and other records. She also testified in September before the House Banking Subcommittee on the Fair Credit Reporting Act. OCA's research on consumer privacy issues revealed that consumers feel that a great deal of their personal information is being circulated due to a competitive marketplace and technological advances. Industry sees this access to more information as a marketing tool for efficiently targeted campaigns. Although most campaigns are legitimate and people are not getting information for unscrupulous purposes, elderly citizens are often the targets of illegitimate marketing campaigns. OCA has coordinated meetings between industry representatives, consumer groups, Congressional committee representatives and special interest groups to address the issue. Research will continue in 1990.

Meetings and Conferences

The OCA Director and staff met with program staff from the American Association of Retired Persons and other aging constituency organizations to underscore the Administration's concern for the elderly and seek their support and views on policies which impact on the elderly.

OCA distributed copies of our *Consumer's Resource Handbook* to the 3,000 attendees at the National Council on the Aging Conference. The conference was held March 29–April 1, in New Orleans.

In April, OCA's Associate Director for Special Concerns coordinated and hosted a Consumer Information Seminar for the Information and Referral Consortium on Aging. A representative from the Consumer Information Center discussed Federal aging-related publications which are available from the Center in Pueblo, Colorado.

The Consortium is a network of organizations which provide information and referral services to the elderly.

OCA's Associate Director for Special Concerns participated in the planning and served as a speaker at the May 10–12 National Energy and Aging Consortium (NEAC) Conference which was held in Tulsa, Oklahoma. More than 250 attended the conference which was held in conjunction with Older Americans Month. The NEAC is a network of 50 organizations helping older Americans cope with high energy costs and related energy concerns. OCA is a founding member of NEAC which includes aging and social service organizations, Government agencies, utilities and trade associations. The conference theme was "Building Better Partnerships: Energy and the Elderly in the 1990s."

Also in recognition of Older Americans Month, OCA's Associate Director for Special Concerns coordinated and presided at a special May 17 seminar on "Addressing the Consumer Problems and Concerns of America's Elderly and Disabled Citizens." The seminar was cosponsored by OCA, the American Association of Retired Persons, the National Organization on Disability and the Society of Consumer Affairs Professionals in Business. The seminar was designed to raise the consciousness and increase the sensitivity of consumer affairs professionals to the needs, concerns and abilities of our elderly and disabled citizens.

OCA's Associate Director for Special Concerns conducted a consumer education workshop at the June 22–24 National Caucus and Center on the Black Aged Conference which was held in Columbus, Ohio. Copies of our *Consumer's Resource Handbook* were distributed to attendees.

OCA, in cooperation with the Direct Marketing Association, held Consumer Industry Dialogues in Atlanta on August 23, and in Cleveland on October 31. The purpose of the sessions was to discuss the problems of purchasing goods and services through the mail. Participants included representatives of the mail order industry, including the catalog, list selling, sweepstakes, telemarketing, and television marketing divisions. Postal inspectors, officials of Federal, State and local consumer protection offices and representatives of Better Business Bureaus also attended. The sessions addressed concerns of the elderly. Older individuals, who may be ill or have limited mobility, are particularly receptive to direct marketing solicitations and are most often the victims of fraud.

OCA's Associate Director for Special Concerns participated in the September 7-9 National Association of Community Action Agencies Conference which was held in Washington. The community action agencies provide services to low income and elderly citizens.

As part of the National Energy Awareness Month celebration, OCA's Associate Director for Special Concerns coordinated a special luncheon seminar sponsored by the National Energy and Aging Consortium. The seminar was held October 3 and focused attention on successful, eldercare programs. The speaker was Dr. Michael Creedon from the National Council on the Aging. The seminar was the only national activity which focused attention on the elderly.

The OCA Director was the keynote speaker at the Food and Drug Administration's Consumer Affairs Officers Conference which was held December 12 in New Orleans. Consumer Affairs Officers are located in communities throughout the country. They answer questions, respond to consumer complaints and provide consumer education on issues relating to health and nutrition, safety, food labeling, prescription drugs, cosmetics, and medical devices. The role of Consumer Affairs Officers in educating elderly consumers and restoring their confidence in the safety of generic drugs is especially important.

The OCA Director gave opening remarks at the Food and Drug Administration's Food Labeling Hearing in Atlanta on December 13. Since many elderly citizens have restricted diets, it is especially important that food labels carry full and accurate ingredient and nutrition information.

INFORMATION AND EDUCATION

Publications

OCA updated and published the *Consumer's Resource Handbook* which contains a section on aging and refers to other sections in the *Handbook* of interest to the elderly, such as health care, Social Security, and veterans affairs. The State and local directory section lists Government offices responsible for coordinating services for the elderly. The *Handbook* also provides consumer information on a number of issues of interest to older consumers, including health fraud, telephone solicitations, warranties, contracts, mail order, and vacation certificates. In addition to the listing of Federal TDD numbers, the *Handbook* also includes TDD numbers of State and local government and corporate listings. The *Handbook* is being distributed to aging organizations and State and area agencies on aging.

OCA reprinted the *Special Report on Cold Stress and Heat Stress* which offers useful information on how to identify the causes and symptoms of these weather-related conditions that often threaten the lives of the elderly. Single copies of the *Report* are distributed free from the Consumer Information Center in Pueblo, Colorado. OCA has also provided bulk copies of the *Report* to aging organizations to be used at conferences, workshops, and seminars.

OCA continued to distribute a booklet produced by the American Bar Association, in conjunction with OCA and TRW Information Services entitled, *Your Legal Guide to Consumer Credit.* The booklet discusses the wise handling of credit and credit discrimination, both important issues to older Americans.

Consumer News, OCA's monthly newsletter, carries articles of general interest to consumers. The following articles were of special interest to elderly consumers.

—March—Announced the May 10-12 National Energy and Aging Consortium Conference which was held in Tulsa, Oklahoma. OCA is a founding member of the NEAC and participated in the planning of the conference.

—April—Announced the availability of two publications which discuss how to understand and control blood cholesterol. *So You Have High Blood Cholesterol* and *Eating to Lower Your High Blood Cholesterol* were published by the National Heart, Lung and Blood Institute.

—May—Reported that the Food and Drug Administration is advising physicians to warn their patients of the side effects of common arthritis drugs. New labels are being required which state that the products pose a risk of serious gasterointestinal problems, such as peptic ulcers.

—June—Announced the Federal Communications Commission's final rule which requires that nearly all telephones manufactured in or imported into the United States must be hearing aid compatible.

—September—Discussed the Food and Drug Administration's crackdown on fraudulent activities in generic drug companies.

October—Announced that October is "Talk About Prescriptions Month." The month is sponsored by the National Council on Patient Information and Education to raise awareness about medical misuse by the elderly and to help consumers use prescription medication safely and effectively.

November—Announced the availability of OCA's updated *Special Report on Cold Stress and Heat Stress* which provides information on how to identify and prevent these conditions which threaten the lives of the elderly.

Education

OCA has worked in partnership with the American Association of Community and Junior Colleges (AACJC) to develop and expand consumer programs which meet the needs of the community. In October, AACJA and the J.C. Penny Company awarded minigrants to community colleges in Jacksonville, Florida, and Weed, California, whose programs are directed to elderly consumers. To address the consumer concerns of Jacksonville's 130,000 elderly citizens, the Florida Community College will develop the "Wise Center for Elderly Program." Through video, older consumers will be provided information on consumer rights and responsibilities, making informed choices, defense against power of persuasion, awareness of risks in telemarketing and impulse buying, recognizing unwise investments, and avoiding victimization by fraud.

A consumer education outreach program for rural elderly is being developed at the College of the Siskiyous in Weed, California. Working through established service provider networks, older consumers will be provided information on money management, wise spending, energy conservation, health care, nutrition, and other issues of interest. The community college expects a ripple effect in passing along consumer information, since 90 percent of Weed's elderly are phoned by another elderly person at least twice weekly to ensure overall well-being.

National Consumers Week

OCA coordinated National Consumers Week (NCW) which was held April 23-29. More than 650 organizations celebrated throughout the country. Many of the events addressed issues of interest to the elderly. For example:

The Arkansas Office of the Attorney General conducted a special "There Ought to Be A Law" contest for students and senior citizens.

The Federal Trade Commission's Los Angeles Regional Office discussed telemarketing fraud at a workshop for representatives of aging organizations.

Senator Orrin Hatch's Senior Conference highlighted the theme, "Consumer Protection: If It Sounds Too Good To Be True, It Probably Is." The conference addressed the most commonly violated consumer protection laws, including seasonal, telemarketing, and health frauds.

The Central Hudson Gas and Electric Corporation produced a series of print advertisements and radio shows that addressed the energy needs of the elderly.

Cornell University's Cooperative Extension Service provided training for senior citizens, staff and volunteers on "Understanding Small Claims Court."

Lederle Labs provided information on rheumatic arthritis in a radio message transmitted via satellite to more than 2,000 radio stations on the Consumer Broadcast Network.

The Suffolk County Department of Consumer Affairs developed a program on "How To Be A Wise Consumer." The program was presented to more than 300 representatives of senior citizen clubs.

The Mercer County Office of Consumer Affairs presented skits at senior centers and nutrition sites. The skits were designed to educate the elderly about their consumer rights and responsibilities.

Patricia Faley, NCW Chairman, was the keynote speaker at Jacksonville, Florida's Senior Consumer Protection Workshop. The workshop focused on health scams, mail order fraud, insurance information, and telephone solicitations.

Constituent Resource Exposition

OCA sponsored a Constituent Resource Exposition (EXPO) on June 16 to improve communication and understanding between Federal officials and Congressional staff in order to help expedite accurate replies to inquiries and marketplace complaints received by Congressional offices. More than 1,000 Congressional staff officers and experts from 36 Federal departments and independent agencies participated in EXPO which was held at the Cannon House Office Building. To further assist Congressional staff, OCA distributed a *Congressional Liaison Handbook* which lists the names, addresses, and telephone numbers of Federal liaison officials within each of the agencies. Many of the inquiries and letters of complaints that Congressional offices receive come from elderly citizens.

INTRAGOVERNMENTAL ACTIVITIES

International

The OCA Director headed the November United States Delegation to the Organization for Economic Cooperation and Development's (OECD) meeting of the Committee on Consumer Policy. This Committee addresses a variety of subjects of interest to all consumers, including the elderly. The Committee is composed of representatives from the 24-member countries. In 1990, the Committee will publish reports on aging-related issues, including the impact on the deregulation of financial services on consumers. Reports will also analyze the impact of agricultural policies on consumers. Product liability systems, new technologies, marketing, and advertising are some of the topics that are currently being discussed. All issues addressed by the OECD are reviewed from a broad consumer perspective and the concerns of the elderly are always reflected in final reports.

Committees

OCA was represented on the following committees which have a special impact on the elderly.

The National Energy and Aging Consortium is a network of 50 government, aging, and private sector organizations which have joined together to help the elderly cope with rising energy costs.

The Information and Referral Consortium on Aging is a network of government, aging and private sector organizations which provide information about and develop programs which strengthen information and referral systems throughout the country.

The Alliance Against Fraud in Telemarketing is a network of government agencies, consumer organizations, telecommunication companies, and marketing trade associations which provide consumer information on telemarketing fraud. OCA participated in the development of a manual which highlights many of the most common telephone scams. The manual had been distributed to the media, consumer protection officials, and consumer groups. The elderly are particularly vulnerable to telemarketing fraud. This is reflected in many of the written inquiries and complaints that OCA receives each year from older Americans.

Executive Order

The OCA Director is designated by the President to be the Chairperson of the Consumer Affairs Council, established by Executive Order 12160. Executive Order 12160—the Consumer's Executive Order—is a directive to Federal agencies to institute consumer programs which are effective and responsive to the needs of consumers. This action is a logical progression from the Consumer Representation Plans of the 17 Executive Branch departments and agencies developed in 1976.

The Order addressed the problems of citizens in achieving adequate participation in government decision-making processes. For example, agencies are required to develop information materials to inform consumers about their procedures for participation. Elderly consumers have been identified as a consitituent group which should be reached with information. Under the Order, agencies must ensure that groups such as the elderly are being reached.

ITEM 27. PENSION BENEFIT GUARANTY CORPORATION

DECEMBER 13, 1989.

DEAR MR. CHAIRMAN: I am pleased to submit the enclosed report for your annual compilation of Developments in Aging. As you requested, our report reviews the Pension Benefit Guaranty Corporation's activities on behalf of older Americans during Fiscal Year 1989.

Thank you for giving us the opportunity to describe our actions and programs on behalf of the elderly.

Sincerely,

JAMES B. LOCKHART III,
Executive Director.

Enclosure.

PENSION BENEFIT GUARANTY CORPORATION

The Pension Benefit Guaranty Corporation (PBGC), created by the Employee Retirement Income Security Act (ERISA) of 1974, is a young and relatively small agency with 550 employees. PBGC protects the pension of nearly 40 million American workers in about 100,000 private sector defined benefit pension plans—the type of plan that promises to pay specified retirement benefits. The agency estimates its insurance covers $750 billion in pension liabilities that are backed by $1 trillion in assets.

ERISA gave PBGC three important missions:

—to encourage voluntary private defined benefit pension plans;
—to provide uninterrupted payment of pension benefits; and
—to maintain premiums at the lowest prudent level.

That mission continues to be the Corporation's mandate as it moves toward the nineties.

Although PBGC is government-owned, it could be regarded as a mutual insurance company. Its policy-holders—American businesses with defined benefit plans—support the agency through their premiums and bear fundamental responsibility for providing retirement security for their workers and retirees. In turn, PBGC is responsible for encouraging employers to continue their plans and protecting the retirement incomes of workers whose employers are unable to do so.

PBGC's financial condition is important both to employees and employees. Employers share in PBGC's results by having higher or lower premiums. PBGC has an obligation to its policy-holders, which is codified in ERISA, to control its premiums and, consequently, its costs. A stable insurance program guarantees workers and retirees tha their retirement incomes are safe.

Given its responsibilities, the agency set goals during fiscal year 1989 to reduce its deficit through continued effecive financial management, investment performance, and legal action; to hold the line with no increase in PBGC insurance premiums; to prevent abuse of the insurance programs; and to encourage the growth of defined benefit plans.

The financial results for the year offered a promising start toward these goals. Increased premium revenues, strong investment returns, and the absence of very large losses from plan terminations enabled PBGC to sharply reduce its deficit during the year. The key to PBGC's future health will be its ability to resist abuses of its insurance programs and avoid significant new losses.

FINANCIAL CONDITION

At the end of fiscal year 1989, PBGC had assets of about $3 billion and liabilities of about $4 billion, reducing its accumulated deficit by about 30 percent. These figures exclude losses attributable to the pension plans of the LTV Corp., which are the subject of a pivotal case awaiting decision by the U.S. Supreme Court.

The pension insurance system has two insurance programs. One program guarantees payment of benefits if an underfunded single-employer plan terminates. The other program provides financial assistance to insolvent collectively bargained multiemployer plans to guarantee their continued payment of retirement benefits.

The single-employer program dominates the agency's financial position. Revenues of about $1 billion produced net income of more than $400 million, the second-largest gain in the program's history. PBGC achieved this profit despite its increasing its reserve for future losses from $108 million to $242 million.

The multiemployer program continued to show very positive results, gaining about $20 million to end the year with an accumulated surplus of about $110 million. As required by the Congress in amendments enacted in 1980, PBGC is conducting a study, to be completed by the end of fiscal year 1990, to determine whether the multiemployer program's premiums or guarantees should be adjusted.

PREMIUMS

PBGC's premium income for fiscal year 1989 increased to over $600 million. These revenues reflect the effects of the Pension Protection Act of 1987, which increased PBGC's premium rate and created a new variable-rate structure for single-employer plans. All single-employer plans pay a flat annual rate of $16 per participant. Underfunded plans pay an additional variable charge (based on unfunded vested benefits) up to a maximum total premium of $50 per participant. Fiscal year 1989 was the first fiscal year for which the new premium was fully effective.

INVESTMENTS

The agency's investments' now totaling nearly $2.5 billion, provided about $400 million in income, a substantial increase over the previous year's results due to the very strong stock and bond markets. Invested funds provided a return of over 15 percent for fiscal year 1989.

PBGC historically has managed its assets like a private pension fund, investing in a diversified portfolio to reduce risk and maintain steady income. Aided by its Presidentially appointed Advisory Committee, the agency regularly reviews its asset allocation and investment policies to assure that its investment posture will meet its current and anticipated financial needs. During fiscal year 1990, PBGC will study whether there are any better ways to invest assets to insulate against future fluctuations in its liabilities.

IMPROVED SERVICE TO THE PUBLIC

PBGC is dedicated to continually improving the quality of its service to those who rely on it for benefit payments.

During its 15 years, PBGC has trusted about 1,500 plans, and presently is paying about 110,000 retirees. Another 115,000 workers will be paid when they reach retirement age. If participants in three LTV Steel Co. pension plans in litigation are included, the numbers of participants receiving and owed benefits would increase by almost 50 percent.

PBGC paid about $330 million in benefits during fiscal year 1989, approximately the same as in fiscal year 1988. In addition, under PBGC's management approximately 60,000 LTV retirees received benefit payments totalling about $320 million from three LTV Steel pension plans and PBGC assets. PBGC also provided $13 million in separate financial assistance to three multiemployer plans covering about 7,600 participants. About 6,000 of these participants continued receiving benefit payments from their plans as a result of PBGC's assistance.

PBGC substantially restructured its benefit payments operations to expedite its processing of terminated plans and participants' benefits and to enhance its communication with participants. PBGC also completed a major overhaul of its standard correspondence to provide participants with simplified information about PBGC's insurance coverage, their guaranteed benefits, and their benefit options.

ENFORCEMENT AND PRESERVATION

Since its inception, PBGC has successfully defended the insurance programs from attempts by some employers to abuse the insurance system or evade their obligations to their employees. At the end of fiscal year 1989, PBGC had 120 cases in litigation. Of these, the agency's legal battle with LTV remained the most prominent as the case was accepted by the U.S. Supreme Court.

THE LTV CORPORATION

In January 1987, PBGC terminated and trusteed three LTV Steel Co. pension plans after LTV, in Chapter 11 bankruptcy, stopped contributing to the plans and informed PBGC that it could not and would not fund them. The three plans, which covered more than 100,000 workers and retirees, were underfunded by more than $2 billion.

Subsequently, LTV established new "follow-on" pension plans that wrap around PBGC-paid benefits and result in a *de facto* continuation of the old plans. These follow-on plans, in combination with the guaranteed benefits paid by PBGC, provide substantially the same benefits as those provided under the original plans.

PBGC has long taken the position that such follow-on plans abuse the pension insurance program by effectively converting PBGC insurance from a safety net for retirees into subsidy of corporate pension costs. Allowing LTV to have them would create a powerful inducement for other companies to terminate their underfunded plans, with potentially grave consequences for the pension insurance program. PBGC already is facing such "copycat" cases.

Based on LTV's establishment of the follow-on plans, as well as on dramatic improvements in LTV's financial condition, in September 1987 PBGC restored the three previously terminated plans to full active operation by LTV. A legal battle ensued in the Federal courts in New York. The district court and the court of appeals subsequently reversed the restoration, ruling that follow-on plans do not constitute an abuse and that PBGC was required to defer to general policies underlying bankruptcy and labor law. The courts also ruled that LTV's financial improvement was not a sufficient basis for restoration unless PBGC could establish that LTV could fully fund the plans over the long term.

Convinced that the future of the pension insurance program was at risk, PBGC asked the U.S. Supreme Court to review the case. The Solicitor General of the United States filed a "friend of the court" brief supporting the PBGC's request for review. On October 30, 1989, the Supreme Court agreed to hear the case. Briefing will be completed early in 1990, and oral argument is expected to be heard in February or March. A decision is likely before the end of the summer.

OTHER CASES

PBGC also continued its vigorous efforts to pursue those who abused their positions of trust as fiduciaries of pension plans and those who assisted them. One such case involves pension plans formerly sponsored by Lundberg Industries, Ltd. In coordination with the U.S. Department of Labor, PBGC is pressing forward with civil suits seeking restitution of more than $7 million improperly removed from the plans by the former owner of the company and several associates.

In another important case, PBGC is suing M&I Marshall and Ilsley Bank, a former trustee of pension plans that were terminated by Wheeling-Pittsburgh Steel Corp. in 1985. PBGC contends that the bank accepted an imporper contribution of nonmarketable company stock in lieu of cash, violating both its fiduciary duty to act solely in the interests of the plan participants and ERISA's prohibited transaction rules. According to PBGC calculations, the plans lost approximately $40 million as a result of this transaction, because of the minimal value of the stock and the lost income that could have been earned had cash been contributed instead.

INTERNAL CONTROLS

PBGC recognizes the importance of assuring the public, and particularly the employers whose premiums support its programs, of the integrity of its employees and operations. For this purpose, it maintains systems and procedures to safeguard its resources, assure adherence to applicable laws and regulations, and promote operational economy and efficiency.

For years, the agency also relied on internal auditors to examine the quality and efficiency of its programs. In response to a change in law, PBGC established an Inspector General with expanded powers to audit and investigate PBGC operations and the activities of PBGC staff. The Inspector General reports directly to the Executive Director and to the Congress and is responsible for detecting and preventing fraud, misuse of agency resources, and other unethical or criminal conduct. The Inspector General also evaluates the agency's programs and operations to identify deficiencies, recommend improvements, and monitor the agency's progress in taking the necessary corrective actions. His first report to Congress (November 1, 1989) reported no significant issues.

THE FUTURE OF DEFINED BENEFIT PLANS

Defined benefit plans are healthier than ever before, with assets of about $1 trillion covering benefit promises of about $750 billion. However, terminations of fully funded plans have remained steady, with slightly more than 11,000 termination notices filed during the past fiscal year. Cases involving reversion of excess assets to an employer continued to decline from their peak in 1985. To date, reversion activity is 37 percent less than 1 year ago, and the majority of participants in these plans continue to be covered under new defined benefit plans.

PBGC is concerned for the future, though, because indications are that defined benefit plans are not growing and, at best, may be plateauing. PBGC's premium base of participants has continued to grow at 1 percent per year but the number of insured plans has been dropping in recent years. The decline in small defined benefit plans has been particularly dramatic. In addition, since 1980, the proportion of employees with pension plans whose primary retirement vehicle is a defined benefit plan has slipped from 80 percent to 70 percent. For the remainder, defined contribution plans are the only or primary plan.

A number of factors may be involved in the shift observed. According to Department of Labor research, changing employment patterns, and particularly the trends toward smaller businesses and service industries, account for about half of the shift from defined benefit plans. Other reasons are cited—frequent complicated and costly changes in legal requirements for pensions, over-regulation by the Federal Government, tax changes, confusing procedures—but there has been no conclusive analysis. As part of its mission to encourage growth of defined benefit plans, PBGC has initiated several studies to isolate the problems of greatest concern to employers and begin the search for solutions.

Defined benefit plans are not suitable for all companies, but they do offer considerable advantages over other types of retirement arrangements for many companies. For the employer, they help provide workforce stability and promote employee loyalty. For employees, defined benefit plans offer predictable retirement income, with protection against the uncertainty and volatility of investment risk backed by Federal pension insurance.

As one step toward increasing employer and public awareness of the value of a guaranteed pension, as provided by a defined benefit plan, PBGC published a new booklet entitled "The Employer's Pension Guide." The booklet, issued with the cooperation of the Department of Labor and the Internal Revenue Service, is a basic, easy-to-understand primer on defined benefit plans.

THE ROAD AHEAD

While much remains to be done, fiscal year 1989 offered a promising view of the road ahead. As a result of recent pension legislation, premium increases, and its strong enforcement activities, the number of terminations declined significantly, resulting in pension insurance claims that are manageable within the present premium structure.

At the same time, PBGC continues to face large potential risks caused by underfunded pension plans. The loss of the LTV case, for example, could double the agency's deficit. Even though defined benefit plans are overfunded by some $250 billion in the aggregate, pension underfunding in specific plans is estimated at $20 billion to $30 billion. This exposure is concentrated in the airline, steel, and automobile industries.

The key to PBGC's future will be its ability to prevent these exposures from becoming claims. Recent pension reforms designed to encourage sponsors to better fund their plans, discourage them from abandoning their plans, and reduce PBGC's losses from a terminated plan will help. The pension insurance program now is stronger with more realistic premiums and less risk of loss. It is PBGC's responsibility to ensure that this positive trend continues by taking a proactive approach to litigation, enforcement, and legislation.

ITEM 28. POSTAL SERVICE

DECEMBER 5, 1989.

DEAR MR. CHAIRMAN: This is in response to your October 11 letter to Postmaster General Anthony M. Frank, requesting information from the Postal Service on activities and programs which assist elderly Americans.

The enclosed document describes Postal Service programs which are designed to meet the mailing needs of older Americans and to prevent them from being victimized by mail fraud.

The Postal Service is pleased to contribute to this endeavor and will continue to develop programs to assist in improving the quality of life for the aging.

Sincerely,

WILLIAM T. JOHNSTONE.

PROGRAMS AFFECTING OLDER AMERICANS

CARRIER ALERT PROGRAM

Carrier Alert is a voluntary community service provided by city and rural delivery letter carriers who watch participants' mailboxes for mail accumulations that might signal illness or injury. Accumulations of mail are reported by carriers to their supervisors, who then notify a sponsoring agency, through locally developed procedures, for follow-up action. The program completed its seventh year of operation in 1989 and continues to provide a lifeline to thousands of elderly citizens who live alone.

DELIVERY SERVICE POLICY

The Postal Service has a long-standing policy of granting case-by-case exceptions to delivery regulations based on hardship or special need. This policy accommodates the special needs of elderly, handicapped, or infirm customers who are unable to obtain mail from a receptacle located some distance from their home. Information on hardship exceptions to delivery receptacles can be obtained from local postmasters.

FEDERAL ACCESSIBILITY STANDARDS

The Postal Service is subject to the Architectural Barriers Act of 1968. The Postal Service is committed to making postal facilities accessible. Over the last 3 years, the Postal Service has inspected and surveyed over 25,000 leased facilities to determine accessibility problems and develop solutions. When facilities are built or leased to the minimum standards of accessibility, which are found in the Real Estate Handbook 4 (RE-4), all customers, especially the elderly, benefit. The minimum standards include designated parking spaces, ramps, handrails, signs, and specific clearances near entrance ways and lobbies.

MAIL FRAUD AND MAIL THEFT INVESTIGATIONS

To many elderly Americans living alone and on fixed incomes, shopping by mail is a convenient way for them to obtain products and services. Unfortunately, they are also attractive targets for a few individuals who operate mail-order swindles. Through mail fraud and misrepresentation of products and services, unscrupulous promoters not only cheat the public but also damage the reputation of the legitimate mail-order industry.

There are several types of fraudulent promotions which, by their nature, tend to focus on the elderly population. One of the most widespread is the work-at-home scheme. Senior citizens living on fixed incomes and seeking to supplement their incomes, may be enticed by advertisements promising enormous earnings while working from the convenience of home. The scheme begins with the promoter requiring an initial fee, typically from $5 to $25, before information about the plan is supplied. The fraud continues as a pyramid operation, whereby the consumer involves others in the scheme, resulting in funds being generated to the promoter and not the respondents.

Individuals approaching retirement or those already retired sometimes respond to what appear to be attractive land sales deals. The promise of a warmer climate, low down payment, and easy monthly installments appears enticing until the purchaser discovers that the parcel of land is located in a desert wasteland and cannot be resold for even a fraction of the price paid.

Another fraud perpetrated against elderly customers is the mail-order sale of worthless pills, nostrums, and devices which promise to rid the aged to needless suffering. Probably the cruelest of these frauds are those that offer hope for cure of cancer, diabetes, and other major illnesses.

The ailments and afflictions that are a part of aging will leave the buyer looking for a magical cure to alleviate arthritic pain, restore lost vigor, and improve impaired sight or hearing. These pills and devices often have not been tested by medical authorities, are not capable of curing, and could even be injurious to one's health.

In an effort to heighten public awareness of mail fraud and other postal-related crimes, the Postal Inspection Service maintains across the country a cadre of Postal Inspectors trained as Crime Prevention Specialists. Working with Federal and State agencies and consumer groups, one of their missions is to educate and inform the public. Each year they appear on hundreds of television and radio interview programs and prepare articles for numerous newspapers and magazines. They give presentations emphasizing the need for consumer action as well as awareness in fighting crime at health fairs, community action groups, and national prevention conferences. They respond to special requests, often from senior citizens, regarding specific problem areas.

Over the past 7 years, the Postal Inspection Service has issued a series of Public Service Announcements alerting the public to fraud schemes operating through the mails. In 1989, the Inspection Service contracted for the production of a Video News Release on fraudulent "Boiler Room" operations which often target the elderly. The release was distributed a via satellite to over 600 stations across the country, and in many instances, was customized to parallel local consumer problems.

Since 1986, the Postal Inspection Service has participated in the National Health Care Anti-Fraud Association Seminars and has worked with this association to combat health care frauds, many of which victimize senior citizens. The Postal Inspection Services has participated in conventions sponsored by the National Council on Aging. At display booths, the Postal Inspection Service highlights various types of fraud schemes which target the elderly. Representatives of the Postal Inspection Service also participate in workshops which furnish information concerning a variety of fraud schemes.

Despite the existence of such preventive efforts, the number and variety of mail fraud schemes ensure that many people will continue to be victimized by mail fraud promotions. In dealing with this, the Postal Services uses a two-pronged attack. Criminal prosecution is possible under the Mail Fraud Statute, 18 U.S.C. Section 1341, which provides penalties of up to 5 years in prison and a $1,000 fine for those who use or cause the mail to be used to further a fraudulent scheme. Second, and perhaps more importantly for the consumer, the Postal Service can take action under the False Representations Statute, 39 U.S.C. Section 3005. This statute permits the Postal Service, following a full due process hearing before an administrative law judge, to return to the sender all mail addressed to a promotion whose advertisements soliciting remittances by mail are proven to contain false representations. In addition, the Postal Services may request the U.S. District Court, in the area where the promotion receives its mail, to issue a temporary restraining order to stop the delivery of mail to that promotion until the administrative law judge renders a decision.

A crime which strikes the elderly population particularly hard is mail theft. Many poor and elderly Americans depend on the receipt of a monthly check in the mail as their sole income. These individuals suffer greatly when their checks do not arrive as scheduled. Each year the Postal Service delivers hundreds of millions of Treasury, State, and local benefit checks. Although the number of stolen checks in relation to the number mailed is minute, the Postal Inspection Service considers this a significant problem and recognizes the impact this crime has on the victim, particularly on elderly persons who are dependent upon the checks for subsistence. The Postal Service also delivers millions of personal and commercial checks and other valuable items such as savings bonds, money orders, credit cards, and food stamps, all of which are appealing targets for mail thieves.

Two slide presentations, entitled "Protecting Your Mail" and "Fraud By Mail," have been developed and are being shown to the public by Crime Prevention Specialists. A Postal Service booklet, *A Consumer's Guide to Postal Crime Prevention*, has been updated to include new information. It furnishes tips to consumers on how to avoid being victimized by a variety of fraudulent schemes and mail theft. This booklet also includes the addresses of Postal Inspection Service Division throughout the country.

A series of investigative programs to combat the problem of mail theft is also in place. Postal Inspectors cooperate with the U.S. Secret Service and local police investigating the forgery of checks believed to have been stolen from the mail. They also work with officials of check issuing agencies to improve procedures for the prompt charge-back of checks and referral of information whenever theft from the mail is suspected. The Postal Service has encouraged the development of better photo and signature identification cards and has enlisted the cooperation of public housing authorities to install and maintain more secure mail receptacles and mailrooms.

NATIONAL CONSUMERS' WEEK/CONSUMERS' PROTECTION WEEK

The Postal Service has sponsored an annual Consumer Protection Week since 1977. Since 1980 the Postal Service's Consumers Protection Week has been scheduled to coincide with National Consumers' Week. Promotion and publicity kits are prepared and distributed to warn consumers about mail fraud and misrepresentation of products and services sold by mail. Additional information about proper addressing of mail, packaging parcels correctly, temporary address changes, sending valuables through the mail, and how to report service problems are also beneficial to senior citizens and are included in the kit. As medical fraud and work-at-home schemes have traditionally ranked at the top of fraudulent promotions, the focus of material distributed has frequently been directed toward alerting senior citizens of such schemes.

STAMPS BY MAIL

Stamps by Mail (SBM) is one of the Easy Stamp Services that allows postal customers in city delivery areas to purchase postal products such as booklets, sheets, coils, postal cards, stamped envelopes, and philatelic items by ordering through the mail.

The SBM program benefits a wide variety of people and is particularly beneficial to elderly or shut-in customers who cannot travel to the post office.

SBM provides order forms incorporated in self-addressed postage-paid envelopes to its customers for their convenience in obtaining products and services without having to visit a USPS retail unit. The form is available in lobbies or from the customer's carrier. The customer fills out the order form and returns it to the carrier or drops it in a collection box. Orders are normally returned to the customer within 2 or 3 business days.

STAMPS BY PHONE

Stamps by Phone (SBP) is a convenience program that is intended to target the business, professional, and household customers who are willing to pay a $3 service charge for the convenience of ordering by phone and paying by credit card (VISA or MasterCard) to avoid trips to the post office. The customer calls the (1-800-STAMPS-24) toll-free number, 24 hours a day, 7 days a week and orders from a menu of postal products. There is no minimum amount and customers will receive their order within 3 to 5 business days.

WINDOW AUTOMATION AT RETAIL FACILITIES

The Postal Service is installing automated systems called Integrated Retail Terminals (IRTs) at the service windows in retail facilities in all medium to large cities. These terminals use video screens to display information about each transaction for the customer. The screens show some mailing restrictions and required mailing forms, total amount due as well as change from the amount tendered. The display of this type of information is useful to many customers with hearing impairments, including some older Americans.

ITEM 29. RAILROAD RETIREMENT BOARD

December 13, 1989.

Dear Mr. Chairman: In response to your letter of October 11, 1989, we are enclosing a report summarizing the U.S. Railroad Retirement Board's program activities for the elderly during fiscal year 1989.

We look forward to your committee's report, *Developments in Aging: 1989.*

Sincerely,

Beatrice Ezerski,
Secretary to the Board.

Enclosure.

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U.S. RAILROAD RETIREMENT BOARD ANNUAL REPORT PROGRAM ACTIVITIES FOR THE ELDERLY

The U.S. Railroad Retirement Board is an independent agency in the executive branch of the Federal Government, administering comprehensive retirement-survivor and unemployment-sickness benefit programs for the Nation's railroad workers and their families under the Railroad Retirement and Railroad Unemployment Insurance Acts. The Board also has administrative responsibilities under the Social Security Act for certain benefit payments and railroad workers' Medicare coverage.

Under the Railroad Retirement Act, the Board pays retirement and disability annuities to railroad workers with at least 10 years of service. Annuities based on age are payable at age 62, or at age 60 for employees with 30 years' service. Disability annuities are payable before retirement age on the basis of total or occupational disability. Annuities are also payable by the Board to spouses and divorced spouses of retired workers and to widow(er)s, divorced or remarried widow(er)s, children, and parents of deceased railroad workers. Qualified railroad retirement beneficiaries are covered by Medicare in the same way as Social Security beneficiaries.

Under the Railroad Unemployment Insurance Act, the Board pays unemployment benefits to railroad workers who are unemployed but ready, willing, and able to work and pays sickness benefits to railroad workers who are unable to work because of illness or injury.

BENEFITS AND BENEFICIARIES

During fiscal year 1989, benefits paid under the railroad retirement and railroad unemployment insurance programs totaled more than $7 billion. Retirement and survivor benefits amounted to $6.9 billion, and unemployment and sickness benefits totaled $89 million. The number of beneficiaries on the retirement-survivor rolls on September 30, 1989, totaled over 900,000. The majority (83 percent) were age 65 or older.

At the end of the fiscal year, 400,000 retired employees were being paid a regular annuity averaging $850 a month. In addition, 200,000 of these employees were being paid a supplemental railroad retirement annuity averaging $46 a month. Some 220,000 spouses and divorced spouses of retired employees were receiving average monthly benefits of $355, and, of the 290,000 survivors on the rolls, 250,000 were aged widow(er)s receiving average monthly benefits of $520. Approximately 11,000 retired employees were also receiving spouse or survivor benefits based on their spouses' railroad service.

The annuities of 245,000 of the 900,000 beneficiaries included vested dual benefits. These benefits preserve equities of annuitants insured for both railroad retirement and Social Security benefits prior to the Railroad Retirement Act of 1974, which provided for a phaseout of dual benefits.

Railroad retirement benefits are being increased in January 1990 to reflect a 4.7 percent increase in the Consumer Price Index (CPI) during the 12 months preceding October 1989. Cost-of-living increases are calculated in each of the two tier portions of a railroad retirement annuity. Tier I portions, like Social Security benefits, increase in January 1990 by 4.7 percent, which is the percentage of the CPI rise. Tier II portions increase by 1.5 percent, which is 32.5 percent of the CPI rise. In 1990, the average regular railroad retirement employee annuity rises about $30 to $880 a month and the average spouse benefit increases about $10 to $365 per month. For aged widow(er)s, the average monthly benefit rises about $20 to $540. Vested dual benefit payments and supplemental annuities also paid by the Board are not adjusted for the CPI rise.

Almost 800,000 individuals who were receiving or were eligible to receive monthly benefits under the Railroad Retirement Act were covered by hospital insurance under the Medicare program at the end of fiscal year 1989. Of these, 780,000 (98 percent) were also enrolled for supplemental medical insurance.

Unemployment and sickness benefits under the Railroad Unemployment Insurance Act were paid to 60,000 railroad employees during the fiscal year. However, only about $0.3 million (less than 1 percent) of the benefits went to individuals age 65 or older.

FINANCING

By the end of the 1989 fiscal year, the equity balance in the Railroad Retirement Account had increased from $7.9 billion to $8.5 billion and the Railroad Unemployment Insurance Account's debt to the Railroad Retirement Account had been reduced to $592.6 million. Recent projections indicate that this debt will be fully repaid by 1998 at the latest.

The Board's June 1989 railroad retirement actuarial report was generally favorable and indicated that, barring a sudden, unanticipated, large decrease in railroad employment, the railroad retirement system will not experience any cash-flow problems during the next 20 years. However, the long-term solvency of the railroad retirement system is still questionable in view of the system's reliance on payroll taxes for funding and the continuing decline in rail employment. To address this concern, Federal budget legislation enacted on December 22, 1987, increased payroll taxes and established a Commission on Railroad Retirement Reform to conduct a comprehensive study of the issues pertaining to the long-term financing of the railroad retirement system. The Commission is to report to Congress by October 1, 1990.

1989 LEGISLATION

The Omnibus Budget Reconciliation Act of 1989 passed by the Congress and sent to the White House after the close of the 1989 fiscal year included a number of railroad retirement and Social Security provisions which affect benefits and taxes in 1990 and subsequent years.

The budget reconciliation legislation increases the amount of earnings subject to Social Security and railroad retirement payroll taxes and specifies 401(k) contributions and some employer-paid life insurance premiums as subject to railroad retirement payroll taxes. This legislation also extends for 1 year, until October 1, 1990, the time during which revenues from Federal income taxes on tier II railroad retirement benefits may be transferred to the Railroad Retirement Account for use in paying benefits. In addition, it revises prior sequestrations of railroad retirement supplemental annuities and unemployment and sickness benefits under the Gramm/Rudman/Hollings Act.

Other legislation repealing the Medicare Catastrophic Coverage Act affects railroad retirement beneficiaries in the same way as Social Security beneficiaries.

IMPLEMENTATION OF 1988 AMENDMENTS

The major program activity of the Railroad Retirement Board during fiscal year 1989 was the implementation of the Railroad Unemployment Insurance and Retirement Improvement Act of 1988, enacted in November 1988 as part of the Technical and Miscellaneous Revenue Act of 1988. While the Act primarily affected railroad unemployment-sickness benefits payable to active railroad employees, it also made substantial revisions affecting railroad retirement benefits paid to retirees.

In order to implement the amendments, the Board had to revise its claims processing systems, obtain data from employers, rewrite procedures, retrain personnel and notify all beneficiaries whose benefits might be affected. A letter was issued to all annuitants in September 1989 to explain the major provisions of the railroad retirement amendments. Changes affecting current and future railroad retirement annuitants are described below:

—The amendments eliminated the railroad retirement "last person service" provision, which had required the suspension of annuity payments to retired employees and spouses who returned to work for their last pre-retirement nonrailroad employer. Since December 1988, the annuities of employees and spouses who continue in, or return to, last person service are subject to the same earnings deductions applied to the Social Security level benefits of other annuitants with post-retirement earnings. But, last person service also reduces railroad retirement payments over and above Social Security levels by $1 for each $2 of earnings from last person service, subject to a maximum reduction of 50 percent. By the end of fiscal year 1989, some 5,000 of these claims had been developed.

—The amendments liberalized the requirements for obtaining railroad retirement credit for service in the Armed Forces between June 15, 1948, and December 15, 1950. Many enlistees in this period had not been allowed service credit because there was not a national state of emergency in force during this period before the Korean War. Railroad retirement credit may now be deemed for such individuals if they meet the general requirement for military service credits by having rendered railroad service in the year of entry into military service, or the preceding year, and, in addition, returned to railroad service immediately after their discharge without working outside the rail industry in the meantime. About 10,000 claims in current-payment status are being identified, reviewed for entitlement to additional service credits, and recomputed to reflect such credits. Some of these claims may have had the military service credited as Social Security wages.

—Separation and severance payments subject to railroad retirement payroll taxes frequently do not yield commensurate railroad retirement service credits because taxes are assessed on the basis of when compensation is paid while earnings credits are allocated on the basis of when compensation is earned. The amendments provided that a lump sum, approximating railroad retirement tier II payroll taxes deducted from separation or severance payments, may be paid upon retirement to employees with 10 years of service, or their survivors, if the separation or severance payments did not yield additional railroad retirement service credits. The lump-sum provision applies to separation and severance payments made after 1984. The Railroad Retirement Board is securing data on separation and severance payments back to 1985 from rail employers. Complete implementation of this provision will not occur until 1990, but initial payments were made in 1989.

—The amendments changed the amount that employee disability annuitants are allowed to earn before their benefits become subject to earnings deductions from $200 a month to $400. Disability annuitants were advised accordingly in the 1989 mass mailing of notices to all beneficiaries.

The Technical and Miscellaneous Revenue Act of 1988 included Social Security provisions which also affect railroad retirement beneficiaries. The major provisions were as follows:

—Social Security benefit deductions for excess earnings in the year of a beneficiary's death, which also apply to railroad retirement tier I benefits, vested dual benefits, and survivor benefits, were liberalized so that the annual earnings exempt amount will no longer be prorated on a monthly basis for the year of a beneficiary's death. Under the amendments, benefit deductions for earnings in the year of the beneficiary's death will not be made unless those earnings exceed the annual limit for that year. In addition, for persons who die in the year of their 65th birthday, the higher earnings exempt amount applicable upon attainment of age 65 will also apply to those who die before their 65th birthday.

—The amendments liberalized the provisions requiring reductions in the Social Security and tier I railroad retirement benefits of employees awarded certain Federal, State, or local government pensions and certain foreign pensions in recent years. Under the amendments, lesser benefit reductions apply to employees with between 21 and 29 years of substantial railroad retirement or Social Security covered employment, as opposed to 26 to 29 years of such coverage under prior law. The amendments also included a technical provision to apply the reduction in the first month of concurrent entitlement to the two benefits, rather than the first month of concurrent eligibility.

LEGAL RULING

Jaeb v. *Commissioner of Revenue*, in the State of Minnesota Tax Court, involved a suit for a refund of taxes paid to Minnesota based on income from railroad retirement annuities. The Tax Court held that Minnesota's law imposing a tax on the tier I and tier II portions of railroad retirement annuities is unconstitutional and void because it is in violation of the Railroad Retirement Act. Based on the Minnesota decision, the State of Ohio's Department of Taxation reversed its position on the taxability of tier I and tier II portions, and is authorizing refunds plus interest for those taxpayers who included such income in Ohio taxable income and who timely file refund applications in accordance with Ohio tax law.

MANAGEMENT IMPROVEMENTS

Modernization of its automated claims processing systems has been the Board's foremost management goal in recent years. The Board has adopted an incremental, multi-faceted approach to modernizing its existing systems, which allows flexibility in implementing changes without major disruptions, provides for an early payback and encourages the development of PC-based solutions. An interbureau planning group of key staff members was established to develop a comprehensive 5-year plan for further automation of retirement claims processing operations.

During the 1989 fiscal year, the Board implemented a system to allow unemployed railroad workers to register for unemployment benefits by mail, rather than in person. The system includes pre-payment and post-payment verification procedures, utilizing electronic data exchange to notify railroads about applications and claims and to receive claim information from railroads.

Other administrative initiatives included enhanced debt collection activities and, as part of the Board's ongoing program to improve financial management, a new program accounts receivable system. The Board also made substantial progress in reviewing and revising the agency's regulations.

At the same time that resources are committed to management improvements for greater efficiency and effectiveness of operations, the Board's staff remains very much aware that considerate and courteous service for each and every railroad retirement beneficiary is essential to the Board's mission.

ITEM 30. SMALL BUSINESS ADMINISTRATION

November 27, 1989.

Dear Senator Pryor: Thank you for your letter of October 11, 1989, concerning The Senate Special Committee on Aging and the preparation of its annual report, Developments in Aging.

The Small Business Administration (SBA) does not directly address the needs of older Americans. The varied services and programs sponsored by SBA are available to all citizens and we encourage older Americans to take advantage of them.

We do sponsor a particular program which may offer unusually attractive services to the older citizen. This program, the Service Corps of Retired Executives (SCORE), has recently celebrated its 25th year of volunteer service. SCORE is a program, sponsored and funded through SBA, that provides free counseling and low-cost training to Americans who wish to go into business or who already own small businesses.

Because the vast bulk of the 13,000 volunteer members of SCORE are retired, they share a bond of age with older Americans. The program offers two distinct services to these citizens. First, SCORE offers a broad program of advice and training to those who may be interested in a new career. And second, SCORE offers a rewarding outlet for energies and experience to those who may wish to give something back to their country.

Over the past year, SCORE has evidenced a growing interest and concern for the older segment of our population and this year we will begin compiling statistics to determine the number of those who currently take advantage of SCORE services.

Again, thank you for your letter. I hope that I have been of some help and I appreciate your interest in small business.

Sincerely,

Susan Engeleiter,
Administrator.

ITEM 31. DEPARTMENT OF VETERANS AFFAIRS

January 8, 1990.

Dear Mr. Chairman: I am pleased to respond to your request for a report of the Department of Veterans Affairs activities on behalf of older persons for the calendar year 1989.

VA has developed a high quality system that provides health care for thousands of elderly veterans every day. Meeting the medical needs of older veterans constitutes one of VA's current greatest challenges.

Thank you for allowing us the opportunity to share this information with you.

Sincerely,

Edward J. Derwinski.

REPORT OF THE DEPARTMENT OF VETERANS' AFFAIRS ACTIVITIES ON BEHALF OF OLDER PERSONS

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ANNUAL REPORT TO SENATE COMMITTEE ON AGING

DEPARTMENT OF VETERANS AFFAIRS

VETERANS HEALTH SERVICES AND RESEARCH ADMINISTRATION

I. INTRODUCTION

The Department of Veterans Affairs (VA) has the potential responsibility for a beneficiary population of over 27 million veterans whose median age is 54.9 years. More than twenty five percent of the veteran population is age 65 and older and will increase to 37% by the year 2000. While the total number of veterans will decline, those over the age of 65 will rise to almost 9 million and by the year 2005 almost four and a half million will be 75 years or older.

This demographic trend will require the VA to redistribute its resources to meet the different needs of this older population. Historically, older persons are greater users of health care facilities. The number of physician visits, short-term hospital stays and number of days in the hospital all increase as the patient moves from the fifth to seventh decade of life.

VA has developed a wide range of services to provide care in a variety of institutional, non-institutional, and community settings to ensure that the physical, psychiatric and socioeconomic needs of the patient are met. Special projects, a variety of innovative, medically proven programs and individual VA medical center initiatives have been developed and tested that can be used for veteran patients and adapted for use by the general population.

VA operates the largest health care system in the Nation, encompassing 172 hospitals, 118 nursing home units, 29 domiciliaries, and 226 outpatient clinics. Veterans are also provided contract care in non-VA hospitals and in community nursing homes, fee-for-service visits by non-VA physicians and dentists for outpatient treatment, and support for care in 55 State Veterans Homes (see page 7) and 3 annexes in 36 States. As part of a broader VA and non-VA network, affiliation agreements exist between virtually all health care facilities and nearly 1,000 medical, dental, and associated health centers. This affiliation program with academic medical centers results in about 100,000 health profession students receiving education and training in VAMC's each year.

In addition to VA hospital and nursing home programs, VA is increasing the number and diversity of non-institutional extended care programs. The dual purpose is to facilitate independent living and keep the patient in a community setting by making available the appropriate supportive medical and human services. These programs include Hospital-Based Home Care, Community Residential Care, Adult Day Health Care and Psychiatric Day Treatment and Mental Hygiene Clinics.

The need for both acute and chronic hospitalization will continue to rise as older patients experience a different mix of diseases than younger patients. Cardiovascular diseases, chronic lung diseases, cancers, organic brain disorders, bone and joint diseases, hearing and vision disorders and a variety of other illnesses and disabilities are all more prevalent in those persons age 65 and older. More often the older individual has more than one chronic condition, and the conditions tend to be progressive, degenerative, and permanent, requiring long-term rehabilitation and care.

In 1975 the Veterans Health Services and Research Administration (VHS&RA) initiated the Geriatric Research, Education and Clinical Center (GRECC) program.

The GRECCs were designed as centers of excellence for the advancement and integration of research, education and clinical achievements in geriatrics and gerontology into the entire VA system. This year two new GRECCs received funding to begin development, bringing the total to 12 GRECCs.

Finally, to meet the challenge of the growing aging population, VA through its long-range planning system is identifying underutilized hospital beds that can be converted to nursing home care beds for the future demand.

II. GERIATRICS AND EXTENDED CARE PROGRAMS

VA Nursing Home Care

The Nursing Home Care Units located in VA medical centers provide skilled nursing care and related medical services, as well as opportunities for social, diversional, recreational, and spiritual activities. Nursing home patients typically require a prolonged period of nursing home care and supervision, as well as rehabilitation services to attain and/or maintain optimal functioning.

In fiscal year 1989, 27,023 veterans were treated in VA nursing homes which had an average daily census of 11,468. Additional new nursing home care unit beds were activated at San Antonio, TX and Minneapolis, MN. These and other changes resulted in a net increase of 254 operating beds for a total of 12,530.

Community Nursing Home Care

This is a community-based, contract program for veterans who require skilled or intermediate nursing care when making a transition from a hospital to the community. Veterans who have been hospitalized in a VA facility for treatment, primarily of a service-connected condition, may be placed at VA expense for as long as they need nursing care. Other veterans may be eligible for placement in community facilities at VA expense for a period not to exceed 6 months. Selection of nursing homes for a VA contract requires the prior assessment of participating facilities. Follow-up visits are made to veterans by teams from VA medical centers to monitor patient programs and quality of care.

In fiscal year 1989, 32,715 veterans were treated in the program. The number of nursing homes under contract was 3,675 in fiscal year 1989. The average daily census in these homes for fiscal year 1989 was 9,305.

VA Domiciliary Care

Domiciliary care in VA facilities provides necessary medical and other professional care for eligible ambulatory veterans who are disabled by disease, injury, or age and are in need of care but do not require hospitalization or the skilled nursing services of a nursing home.

The domiciliary offers specialized interdisciplinary treatment programs that are designed to facilitate the rehabilitation of patients who suffer from head trauma, stroke, mental illness, chronic alcoholism, heart disease and a wide range of other disabling conditions. The domiciliary with increasing frequency, is viewed as the treatment setting of choice for many older veterans.

Implementation of rehabilitation-oriented programs has provided a better quality of care and life for veterans who require prolonged domiciliary care and has prepared increasing numbers of veterans for return to independent or semi-independent community living.

Special attention is being given to older veterans in domiciliaries with a goal of keeping them active and productive as well as integrated into the community. The older veterans are encouraged to utilize senior centers and other resources in the community where the domiciliary is located. Patients at several domiciliaries are involved in senior center activities in the community as part of the VA's community integration program. Other specialized programs in which older veterans are involved include Foster Grandparents, Handyman Assistance to senior citizens in the community, and Adopt-A-Vet.

In fiscal year 1989, 17,822 veterans were treated in VA domiciliaries with an average daily census of 6,315. (Of these numbers, approximately 3,600 veterans and an average daily census of 969 were admitted to the domiciliaries for specialized care for homelessness. This group has an average age of 42 years, while the overall average age is 59 years.)

State Homes

The State Home program has grown from 11 homes in 11 States in 1888 to 55 State homes (one of which has three annexes) in 36 States. Currently a total of 18,939 beds are authorized to provide hospital, nursing home and domiciliary care.

VA's relationship to State Veterans Homes is based upon two grant programs. The per diem grant program enables VA to assist the States in providing care to eligible veterans who require domiciliary, nursing home, or hospital care in State home facilities. The other VA grant program provides up to 65 percent Federal funding in the construction or acquisition of new domiciliary and nursing home care facilities, and the expansion, remodeling, or alteration of existing facilities.

In fiscal year 1989, the Secretary recognized a new State home at Southeastern Pennsylvania, and is in the process of recognizing a 150-bed nursing home at Alexander City, Alabama, a 150-bed domiciliary at Lake City, Florida, and a 40-bed nursing home at Caribou, Maine. Construction was started on a 120-bed nursing home in the State of Maine; and a 220-bed nursing home at Anderson, South Carolina. The $49.4 million obligated by VA in fiscal year 1989 for construction and renovation projects also included: new State homes in Kentucky for 240 nursing home and 60 domiciliary beds; a 120-bed nursing home at Murfreesboro, Tennessee; 50-bed nursing home additions at State homes Tilton, New Hampshire, Marquette, Michigan, and Homelake, Colorado; a 300-bed replacement facility at Sandusky, Ohio; a 180-bed nursing home at Spring City, Pennsylvania; a 148-bed nursing home at Hollidaysburg, Pennsylvania; an 89-bed nursing home at Silver Bay, Minnesota; and four general renovation projects.

Palliative Care

VA has developed programs which furnish palliative care, supportive counseling, and other medical services to terminally ill veterans, as well as supportive counseling to their families in various service settings. The hospice concept of care is generally incorporated in VA medical centers' approaches to the care of the terminally ill.

Hospital-Based Home Care

The program provides primary medical care to veterans with chronic illnesses in their own homes. The family provides the necessary personal care under the coordinated supervision of a hospital-based interdisciplinary treatment team. The team provides the medical, nursing, social, rehabilitation and dietetic regimens, as well as the training of family members and the patient.

Seventy-two VA medical centers are providing hospital-based home care services. More acute beds in hospitals are made available by providing increased days of care in the home.

In fiscal year 1989, 296,559 home visits were made by health professionals. Over 15,710 patients were treated.

Adult Day Health Care

Adult Day Health Care (ADHC) is a therapeutically oriented ambulatory program that provides health maintenance and rehabilitation services to veterans in a congregate setting during daytime hours. ADHC in the VA is a medical model of services, designed as a substitute for nursing home care, as established by Public Law 98-160. VA continues to operate 15 ADHC centers in FY 1989. The average attendance was 318 and 833 patients were enrolled in fiscal year 1989. VA also continued a program of contracting for ADHC services at 22 VA medical centers. Seventy-six contracts have been established. The average attendance was 82 and 396 patients were treated in Fiscal Year 1989.

Community Residential Care

The residential care home program provides residential care, including room, board, personal care, and general health care supervision to veterans who do not require hospital or nursing home care but who, because of health conditions, are not able to resume independent living and have no suitable support system (e.g., family, friends) to provide the needed care. All homes are inspected by a VA multidisciplinary team prior to incorporation of the home into the VA program and annually thereafter. Care is provided in private homes that have been selected by VA, at the veteran's own expense. Veterans receive monthly follow-up visits from VA health care professionals. In FY 1989 an average daily census of 11,100 veterans was maintained in this program utilizing approximately 2,900 homes.

Geriatric Evaluation Units

A Geriatric Evaluation Unit (GEU) is usually a functionally different group of beds (ranging typically in number from 4 to 20) on a Medical Service or an Intermediate Care ward of the hospital where an interdisciplinary health care team performs comprehensive geriatric assessments. The GEU serves to improve the diagnosis, treatment, rehabilitation and discharge planning of older patients who have functional impairments, multiple acute and chronic diseases, and/or psychosocial problems. In addition to improving care for older patients and preventing their unnecessary institutionalization, a GEU provides geriatric training and research opportunities for physicians and other health care professionals in the medical center.

Results from a controlled, randomized study of GEU efficacy that was conducted at the VA Medical Center Sepulveda, CA, showed significant benefits such as improved survival, rehospitalization rates, functional status, and decreased nursing home placement following admission to the GEU.

Currently, there are 87 Geriatric Evaluation Units in the VA medical system. Further expansion of the program is anticipated.

Respite Care

It is generally recognized that most chronically ill persons who do not need hospital services can be most effectively cared for, if, through the assistance of family or other members of the household, they are able to live at home. At the same time, there is recognition that such arrangements for care of a patient at home may place severe physical and emotional burdens on the caregiver and the household. The clinical objective of providing institutionally-based respite care is to support the caregiver's role in caring for the chronically ill veteran at home.

VA may provide respite care which is of limited duration and is provided in VA facilities on an intermittent basis to a veteran who is suffering from a chronic illness and who resides primarily at home. Respite care is offered for the purpose of helping the veteran to continue residing primarily at home. The respite care program could and should interdigitate and reciprocate with the hospital-based home care program at VAMCs in which both services exist. Currently approximately 100 medical centers are providing respite care.

Alzheimer's Disease and Related Disorders

VA's program for veterans with Alzheimer's disease and related disorders is decentralized throughout the medical care system with coordination and direction from the Office of Geriatrics and Extended Care. Veterans with these diagnoses participate in all aspects of the health care system including outpatient programs, acute care programs and extended care programs. Some medical centers have established specialized programs for the treatment of these veterans. In order to advance knowledge about the care for veterans with dementia, VA conducts basic biomedical, applied clinical and health service research through the Office of Research and Development and the Geriatric Research, Education and Clinical Centers (GRECCs). Rehabilitation Research and Development Service develops and evaluates new technologies and techniques designed to minimize excess disability associated with dementia. Continuing education for staff is provided through training classes sponsored by Regional Medical Education Centers, GRECCs and Cooperative Health Manpower Education Programs.

During FY 1989, VA completed a major revision of the 1985 "Guidelines for Diagnosis and Treatment of Dementia", which will be widely distributed within and outside VA. A survey of all VA medical centers to collect information on current services for veterans with dementia was also completed in FY 1989 and a directory is being prepared for VA field staff use.

Geriatric Research, Education & Clinical Centers (GRECCs)

The Geriatric Research, Education and Clinical Centers (GRECCs) assume an important role in further developing the capability of the VA health care system to provide maximally effective and appropriate care to older veterans. First implemented in 1975, GRECCs are designed to enhance the system's capability in geriatrics by conducting integrated research, education and clinical care. The goals of the GRECCs are to develop new knowledge regarding aging and geriatrics, to disseminate that knowledge through education and training to health care professionals and students, and to develop and evaluate alternative models of geriatric care.

Each GRECC has developed an integrated program of basic and applied research, education, training and clinical care in select areas of geriatrics. Current focal areas include cardiology; cognitive and motor dysfunction and neurobiology; endocrinology, neuroendocrinology, metabolism and nutrition; geropharmacology; immunology, oncology and infectious diseases; rheumatology; and molecular biology of aging. Using an integrated approach, the GRECCs are developing practitioners, educators, and researchers to help meet the need for training health care professionals in the field of geriatrics; providing information for as well as establishing models on cost-effective approaches to care of the elderly; and researching better and more different methods to diagnose and treat health care problems of the older person as well as finding answers to fundamental questions on the process and consequences of aging.

At present there are 12 GRECCs. Ten are fully operational and are located in VA medical centers at Bedford and Brockton/West Roxbury, MA (2 divisions); Durham, NC; Gainesville, FL; Little Rock, AR; Minneapolis, MN; Palo Alto, CA; St. Louis, MO; Seattle/American Lake, WA (2 divisions); Sepulveda, CA; and West Los Angeles, CA. Two new GRECCs began operation in FY 1989 at Ann Arbor and San Antonio VA medical centers. Public Law 99-166, "Veterans Administration Health Care Amendments of 1985", increased from 15 to 25 the maximum number of facilities that the VA Administrator (now Secretary of VA) may designate for GRECCs.

III. OFFICE OF CLINICAL AFFAIRS

Medical Service

The Medical Service serves as the primary source of physicians for the care of elderly patients. Due to the aging of the population, the Medical Service is increasingly involved in all aspects of the delivery of health care to the aged. Acute and intermediate medical wards, coronary and intensive care units, nursing homes and outpatient clinics are all seeing an increased proportion of elderly patients for acute illnesses.

Some subspecialty areas are particularly impacted, including cardiology, endocrinology (diabetes)/rheumatology and oncology. The Medical Service provides necessary subspecialty care in inpatient and outpatient settings in addition to participating in Geriatric Fellowship Training, GRECCs, Geriatric Evaluation Units (GEU's), Hospice, Respite, Hospital-Based Home Care, and Senior Clinicians Programs. The specialized care that is required by the elderly has been recognized by Medical Service at approximately 25 VA medical centers, by their establishment of a Chief of Geriatric Medicine Section, which emphasizes clinical care, as well as coordinating research, education efforts related to geriatrics.

Age alone is less frequently used as a determinant of an individual patient's care. Geriatric patients increasingly undergo cardiac catheterization and cardiac catheterization laboratories are being established according to demographic need. The sunbelt is experiencing an increasingly heavy catheterization load. Similarly, the average age of patients treated in coronary and intensive care units is increasing, producing a concomitant demand for cardiac rehabilitation and physical fitness programs that are targeted to the frail elderly and the physically handicapped of all ages. Oncology treatment centers are also expanding. The special interest and involvement of Medical Service in geriatrics has also resulted in participation by internists in such programs as Adult Day Health Care, as well as in research problems in nutrition and treatment of hypertension.

Smoking cessation has been shown to benefit even elderly patients, thus the role of Preventive Medicine for this patient population has expanded. The Medical Service has been active in implementing preventive strategies in smoking cessation, immunization (influenza and pneumococcal vaccines), and colorectal screening (for cancer).

The Medical Service has actively participated in the Intermediate Care Advisory Group. Evaluation and treatment of elderly patients by interdisciplinary teams during intermediate-length hospital stays will be an increasingly important role for the physicians of the Medical Service.

Mental Health and Behavioral Sciences

Mental Health and Behavioral Sciences Service (MH&BSS) continues to move forward in efforts to develop clinical programs to meet the needs of the aging veteran population with behavioral disorders. Geropsychiatric patients

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account for 2.4% of all VAMC admissions; however, they consumed almost 23% of the total days of care for this year.

Last year 14% of all geriatric patients treated in VAMCs were admitted primarily for psychiatric disorders; this figure does not include veterans who were admitted for other reasons while suffering a long-standing psychiatric disability. Their clinical problems were partly related to age, but also were determined by the presence of simultaneous medical and psychiatric disorders. The presence of a behavioral disorder in an elderly veteran resulted in an increase in length of hospitalization as well as a significant increase in the death rate. This group of patients required more intensive care, and more extensive hospitalization.

VA offers a variety of innovative programs to assist geropsychiatric patients. For example, a psychologist at VAMC Coatesville heads a "Stroke Clinic" for families of patients with strokes. During the rehabilitation process, families are prepared for limitations in activity and changes in the patient's personality and are taught ways to cope with and be supportive to the veteran.

Computer-assisted Cognitive Rehabilitation programs at VAMC Lyons, New Jersey; Martinsburg, West Virginia; and Palo Alto, California, among others, assist elderly patients showing signs of short-term memory loss associated with early dementia or pseudodementia. A patient who required escort to and from appointments may be able to go unaccompanied after participating in such a program.

A number of MH&BSS staff are also involved in Respite programs (see also p. 11) which permit caregivers a few days or weeks of respite from the demanding care of an elderly veteran living in his or her home by admitting the patient temporarily to a Nursing Home Care Unit (NHCU). Ongoing advice and support to the caregiver, most of whom are also elderly, extends the numbers of patients that these NHCUs can treat far beyond their bed capacity. Elderly veterans living at home with such a caregiver are reportedly often more debilitated than many in the NHCU.

VA hospitals provided inpatient psychiatric care to a large number of veterans who reside in VA and community nursing homes, domiciliaries, and with caregivers in the community.

Recent cooperative efforts by MH&BSS and Medical Service as well as other offices in VHS&RA (e.g., Geriatrics and Extended Care, Academic Affairs, Research and Development, and Regional Directors) have resulted in the development of innovative pilot programs. For instance, Dr. Lissy Jarvik, distinguished physician, psychiatrist and researcher at VAMC West Los Angeles (Brentwood), by discovering dysfunctional microtubules within brain cells of Alzheimer's patients, has created promising research possibilities regarding the cause of that devastating illness. She has also demonstrated that comprehensive, multi-level care for the elderly can significantly improve their quality of life and decrease medical costs.

GRAMPS (Geriatric Record and Multidisciplinary Planning System), a provider-interactive computerized medical record system which was designed to support outpatient geriatric practice in VA clinics, was developed and pilot-tested by a VA psychologist now at VAMC American Lake. In a controlled, prospective study involving over 300 geriatric patients at VAMC Loma Linda, physician use of the system was demonstrated to be associated with a reduction of hospitalization costs ($600 per patient per year), improvement in the quality of care, and better outcomes for patients treated for hypertension. GRAMPS was well accepted by users and was capable of producing legible progress notes, prescriptions and consult requests. The physicians noted better access to clinical information, (e.g., medication status, weights, blood pressures) and systematic reminders regarding such issues as patient education. With additional testing, GRAMPS offers the possibility of serving as a general medical record system for all VA ambulatory care and has the potential to improve health care while helping control costs.

The Director, Western Region, sponsored two pilot programs which involves treating primarily elderly veterans who have combined acute medical and psychiatric problems. VAMCs Portland and West Los Angeles will compare different methods of organizing such programs by using predefined outcome criteria.

MH&BSS is revising the patterns of care provided to the elderly veterans and will continue to encourage the development and expansion of the programs which respond to this population's needs.

Social Work Service

The rapidly increasing population of chronically ill/frail elderly veterans requiring long-term care provides a special challenge to Veterans Health Services & Research Administration and to Social Work Service, a challenge that is expected to continue through the 1990's and perhaps beyond. If VA's goal of providing "high quality care, in the most cost-effective way, with compassion and through centers of excellence" is to be achieved in the present and projected economic climate, it is essential that a comprehensive range of health and social services be available to ensure that patients are provided with the appropriate level of care, and that continuity of service is achieved along the care continuum.

Areas of social work practice essential to ensuring continuity of care include discharge planning, care coordination/case management services, and community services coordination and development. These critical components of the health care continuum have been central to the development of social work programs for older veterans for many years and will continue to assume a major role in the development, expansion, and integration of services to prevent or delay institutional care and to promote the well-being of veterans who can be cared for more appropriately in their own homes or in an alternative community setting. Consistent with this framework for action, the following initiatives have been targeted for implementation/expansion during 1989 and beyond:

1. Care Coordination/Case Management Services

Care Coordination, or case management, is a service system in which the responsibility for assessing, planning, locating, coordinating, and monitoring groups of services rests with a designated provider and occurs on a case by case basis. Within the VA health care system, a comprehensive approach must be developed which coordinates the interdisciplinary resources of our acute, intermediate, and long-term care programs with the full range of community health and social services to ensure integration and continuity of care for patients and their families. Already provided to significant categories of patients (long-term psychiatric, visually impaired, spinal cord injured, dialysis, ex-POW's, etc.), Care Coordination Services must be expanded to all patients requiring such services to ensure clinically relevant care, continuity, and cost effectiveness. Social Work Service is expanding services and software which will provide a systemwide program for interdisciplinary and VA/community participation and accountability in this important area.

2. Expanding Alternative Levels of Care - Completing the Health Care Continuum

Clinical programs continually treat significant numbers of patients who could (and should) be provided care at a lesser level of clinical resources and expense. However, such services are often unavailable and reflect a "gap" in the care continuum. What is needed is a broad range of coordinated, integrated, and managed services, ranging in intensity and complexity on the basis of changing patient health and functional status. These services involve a spectrum of VA and non-VA services, which are delivered in a wide range of settings, from inpatient care units to the home. If VA is to manage the health care of frail elderly/ chronically ill veterans, it will have to enter into expanded partnerships with its health care and social service allies in the community. At all VA medical centers, community services coordinators have been appointed to facilitate the coordination, development, and integration of VA and community services to meet the needs of chronically ill/frail elderly veterans. Numerous initiatives have been reported systemwide whereby VA and the community health and social services network, including the area agencies on aging, work cooperatively to promote the delivery of services to veterans and non-veterans who otherwise might occupy costly acute medical or nursing care beds, or who would suffer the consequences of unavailable or inaccessible services.

3. Systems for Supporting the Family Caregiver

Clinical experience over the past several years has confirmed that treatment and continued care of chronically impaired veterans must include the family caregiver. Recognized as a primary and legitimate care provider in Respite, Hospital-Based Home Care, Palliative Care/Hospice, and Adult Day Health Care programs, the primary caregiver must be involved in education, training, and active participation with the health care team to ensure support in their caregiver role as well as the integrity of the VA health care system. Social Work is drawing from established programs at three medical centers in developing staff training and caregiver teaching materials for systemwide use.

4. Serving the Homeless Veterans

While it is difficult to estimate the proportion of older veterans who are homeless, it is reasonable to assume that the number is increasing as the veteran population ages. National studies and available statistical data clearly indicate that a significant percentage of veterans comprise the population of homeless males nationwide. While services and programs have been substantially expanded or developed through special funding of Chronic Mentally Ill Homeless programs and specialized domiciliaries, approximately two thirds of VAMCs must respond to this growing national problem without additional agency resources. It is imperative that joint planning and development efforts with the community services network be expanded and creative responses developed which use appropriately the expertise and resources of each. While recognizing the unique scope of the homeless problem, including the geographic and resource constellation of each VAMC, information regarding program developments and experiences is being shared with Social Work Service's community service coordinators.

5. Expanding Health Care Resources Through the Creative Use of Volunteers

Community-based volunteers provide a largely untapped potential resource for assisting clinical staff in sustaining patients in community settings. Experience of Senior Companion Programs at over 30 VAMCs, the Older Veterans Assistant Program (OVAP) sponsored by DAV, and a wide range of participation by organized veterans groups and affiliated volunteers have demonstrated the crucial role volunteers contribute to both patient and primary caregiver. Social Work and Voluntary Services have undertaken a joint initiative to recruit and equip this valuable resource for the continued treatment and community stabilization of veteran patients and caregivers.

In 1989 at a national health care symposium, Social Work Service chiefs and other key staff developed a consensus document which outlined areas for Social Work Service action and intervention in the 1990's. While giving specific sanction to the priority areas noted above, special emphasis was placed on community resource development and collaboration as an essential component in the implementation of a plan to address the specific needs of our geriatric population. The Social Work Service Resource and Program Development Committee is in the process of identifying and publicizing creative programs at specific medical centers or outpatient clinics which promote VHS&RA priorities of service coordination, cost containment, and improved utilization of VA and community resources.

Rehabilitation Research and Development

The mission of the Rehabilitation Research and Development (Rehab. R&D) Service is to "support research for improving the quality of life of impaired, disabled and handicapped veterans, including our aging veterans." This is accomplished by conducting a program of research, development and evaluation of new and unique devices, techniques and concepts of rehabilitation that will allow more functional independence in the activities of daily living of physically disabled and infirm veterans.

The Rehabilitation R&D Service has established a significant interest area in the field of aging. The Rehabilitation R&D Service will actively promote this effort through the following:

Stimulate new R&D in VA Medical Centers to meet the needs of disabled aging veterans.

Support a Rehabilitation Research and Development Unit at Decatur, Georgia whose primary focus is the needs of aging veterans.

Evaluate in VA medical centers newly developed devices, techniques and concepts on rehabilitation as they pertain to the aged.

Promote commercialization of the products of VA-sponsored R&D.

Promote the utilization of rehabilitation R&D technological advances developed by our research and that of others by dissemination of the Journal of Rehabilitation Research and Development and articles in other professional journals.

In addition to the Rehabilitation R&D unit at Decatur, Georgia specializing in aging and merit-reviewed projects at VAMC's throughout the nation, Rehabilitation R&D supports two other Rehabilitation R&D Centers which conduct research impacting on aging. One of these centers is located in Palo Alto, California. In collaboration with Stanford University, this center conducts research in orthopedic, biomechanics, and man-machine integration as it relates to robotics, and analytic modeling of disability and devices. Another center is located at Hines, Illinois, with research emphasis in orthopedic surgery and visual deficiencies.

One of the unique problems that the elderly experience is that of mobility. Wheelchairs provide mobility for the elderly. In the early 1940's, the wheelchair was revolutionized with the design and manufacture of a portable, lightweight, strong, and maneuverable model. Since then the most important innovation has been the powered chair. Rehabilitation R&D has been supporting several efforts to make wheelchairs more useful to those who need them. We have supported the development of standards for wheelchair manufacture and design and these standards have been submitted to and accepted by the American National Institute of Standards. There are approximately 125 wheelchair manufacturers in the United States today, each making a variety of models.

Three major problems which wheelchair users experience are: 1) the inability to make the wheelchair go when one or both arms of the individual lacks strength or function to operate the wheelchair; 2) to make the wheelchair go sideways or kittycornered as well as forward and backward; and, 3) to surmount the barriers of stairs, curbs and uneven terrain.

The Rehabilitation R&D Center at Palo Alto, California has developed an Ultrasonic Head controlled wheelchair. In this design, head movements of the patient activate two polaroid ultrasonic distance ranging sensors which generate control signals for the operation of the chair. Another researcher at Palo Alto is working on an Optimal Biomechanical Design for the Development of an Arm Powered Mobility Vehicle. The thrust of this work is the search for the most mechanically efficient method of powering wheelchairs with the upper extremities. Another design out of Palo Alto, now commercially available is the omnidirectional wheelchair which can move in any direction.

A very sophisticated kind of environmental control which has relevance to the needs of older persons is the family of robotic arms -- articulated metal arms that can be programmed for some basic function. The robot can be useful for assisting in eating, grooming, reaching for a book, turning a page or summoning an attendant. Some respond to voice commands. The Rehabilitation R&D Service is in the process of commercializing the first generation of robotic arms for use with paraplegics -- who are enthusiastic about the degree of independence robotic arms provide. Research is being conducted to establish the man-machine interface for older persons.

Five Federal agencies (the National Institute on Aging, the Administration on Aging, the Department of Veterans Affairs, the National Aeronautics and Space Administration and the National Institute of Disability Rehabilitation Research) are pooling resources, talent and knowledge to develop a wandering device to assist the elderly in remaining as independent as possible wherever they reside.

Under contract in FY 1988, the five agencies continued efforts to design and develop a device which alerts a caregiver that a wanderer has left a prescribed area and a device which will track that wanderer once he/she leaves that prescribed area.

The Rehabilitation R&D Unit in Decatur, Georgia is pursuing research in the care of individuals who are demented particularly those with dementia of the Alzheimer's type. Wandering is a serious problem for both caregivers and elderly persons who engage in the behavior.

One of the questions that was posed is whether or not a wanderer's behavior could be changed or modified or redirected. A pilot study being conducted by the Rehabilitation R&D Unit at the VA Medical Center, Decatur, nursing home offers some preliminary results that seem to indicate that it is possible to intervene in the behavior of a wanderer using verbal commands.

The Rehabilitation R&D Service is in the process of digitising hearing aids. One of the problems that hearing aid wearers face is the inability of the clinician to adjust the hearing aid to the specific and unique characteristics of the wearer. Rehabilitation R&D is supporting research that is approaching commercialisation on the digitised hearing aid. This important development involves the use of a computer to fine tune the hearing aid to the specific hearing loss frequencies of an individual.

Rehabilitation R&D is also putting computers to use in working with aphasics. communicate, particularly those who have lost the ability to recognise everyday items and to articulate them. A specialised language has been constructed based on flash card technology to assist the aphasic in understanding the spoken language and communicating.

Another example of Rehabilitation R&D-supported research in the area of aging concerns the use of computer-assisted therapy for aphasics. This is an instance where computers have bridged the gap between the availability of trained manpower and individuals who need therapy. In Birmingham, Alabama research has been completed which has shown that it is possible for a computer to be programmed to conduct speech therapy by telephone.

Rehabilitation Medicine Service

Rehabilitation Medicine Service (RMS) strives to provide all referred older persons with comprehensive assessment and treatment of physical disability effecting functional independence and quality of life. Through the use of physical agents, therapeutic modalities, and exercises RMS therapists assist the patient in developing and attaining specific goals.

RMS therapists and other interdisciplinary professionals led by physicians, usually physiatrists, continue to provide inpatient care in 1,400 beds at 75 medical centers. Growth is scheduled at 8% for the next five years. Physical, psychosocial, and vocation rehabilitation therapy is also provided to outpatients and to veterans referred from all other bed sections of medical centers. Self-help skills and independent living training, muscle strengthening, mobility training and prescription and provision of prosthetic and orthotic aids and devices, constitute major traditional therapy offerings.

Occupational and physical therapists, are developing state-of-the-art delivery in nontraditional settings such as home-bound health care, independent living centers, GEUs, Alzheimer units, and palliative care/hospice care centers. They are working, teaching and receiving education in special programs including GRECCs, and Interdisciplinary Team Training in Geriatrics (ITTGs) (see p. 55).

Pilot projects are being developed to provide driver education orientation and evaluation for veterans over 55 years of age. Resources at over 27 existing handicapped driver training centers would be used to meet needs of aging veterans who drive after the average age of safe driving. Classroom education updates in laws and defensive driving techniques would be supported by behind the wheel driver observation from driver training professions. A uniform functional independence measure (FIM) is being prepared for national application with rehabilitation patients. Eighteen elements of life function will be addressed and changes of performance during treatment quantified and compared. FIM development has been sponsored by the American Congress of Rehabilitation Medicine and the American Academy of Physical Medicine and Rehabilitation and endorsed or participated in by 11 other national rehabilitation organizations. This multidisciplinary tool will facilitate efforts to assure quality care to all veterans served by RMS.

Therapists and students also staff and/or receive training in GRECCs where they are participating in research and development of geriatric assessment tools. A significant number of RMS therapists have received advanced education and training in gerontology which focuses on new and successful treatment programs for the geriatric population.

Nursing Service

Nursing care of the elderly veteran is a vital part of the Nursing Service mission and comprises the largest proportion of health services required by this age group. Recognizing the rapid increase in the number of aging veterans being admitted for care in all treatment modalities, Nursing Service is making a concerted effort to provide strong leadership in the clinical, administrative, research and educational components of nursing practice.

Academic preparation is a high priority of Nursing Service to assure quality programs for treatment and rehabilitation of aged ill, disabled and at risk veterans. Graduate nursing students receive clinical education experience in GEUs, Nursing Home Care Units and Hospital-Based Home Care programs. While the demand for rehabilitation nurse specialists has been increasing, the supply has been diminishing over recent years, due primarily to reduction in nurse traineeship funds for graduate education in this specialty area. Recruitment of highly qualified professional nurses is an on-going priority. One hundred four (104) positions were funded in 1988 by the Clinical Nurse Specialist Program for masters level nursing students in either geriatric/gerontological, rehabilitation or psychiatric/mental health nursing. One hundred eleven (111) were funded in these areas in 1989.

Executive development of nurse leaders in long-term care is provided through preceptorship training for the position of Associate Chief or Supervisor, Nursing Home Care. Currently, 50 Supervisors of Nursing Home Care have been approved for the discretionary title of Associate Chief, Nursing Service for Nursing Home Care.

Preventive care and health promotion incentives are implemented to preserve independence, foster productivity and enhance the quality of life by improving the health status of aging veterans. The "young old," ages 65-74 are relatively healthy and concerned with maintaining their health. Nurses in wellness clinics and other adult care settings provide supervision, screening and health education programs to assist veterans in maintaining healthy life styles.

Programs for the physically disabled and cognitively impaired have been established and are administered by nurses in home care, ambulatory care settings and inpatient units. Treatment programs are goal-directed toward physical and psychosocial reconditioning or retraining of patients with biological and psychosocial disturbances. Patient and family teaching is a major part of each program. Family and significant others have a key role in providing support to aging veterans and are assisted in learning and in maintaining appropriate responsibilities. VA nurses are also volunteering their services for health care planning for the elderly in the community-at-large. They participate in self-help and support organizations related to specific diseases such as Alzheimer's, are advisors to local health planning councils, and share VA educational activities and research seminars with other health care professionals.

While progress has been made in the care of aging veterans, increasing demands, shortages of critical health care personnel, and cost containment issues require more effective coordination of health care delivery to prevent fragmenting of care and inappropriate institutionalization. Practice models are needed to facilitate the care of aging veterans throughout the health care continuum and to assure access to the appropriate level of care in the most cost-effective setting. Professional nurses function as part of interdisciplinary teams to coordinate and provide care in settings beginning with GEUs and progressing along many care settings including ambulatory care, acute care, intermediate care, long-term care and community agencies.

Continuing education is essential to providing quality care to aging veterans. Nursing Service was part of a national task force responsible for a national training program on health care problems of the elderly. The program was presented in two medical districts to an interdisciplinary team from each medical center. Members of the task force continue to serve as consultants to the interdisciplinary team to assure plans are implemented and the impact on care to aging veterans is evaluated.

Professional nurses are encouraged and supported in their efforts to conduct research, especially in clinical settings. Research is needed to advance health care for older persons and to improve gerontological nursing practice. Areas in which research are urgently needed to improve the quality of care include:

- Urinary incontinence
- Falls
- Care of Alzheimer's patients
- Wandering behavior
- Dementia
- Nutrition
- Exercise
- Mobility
- Psychotropic medication
- Health promotion
- Frail elderly in the home setting
- Alternatives to institutional care

Dietetic Service

Dietetic Services in all VA medical centers are developing and/or continuing efforts to strengthen the nutritional care of the older veterans. The provision of adequate nutrients in a consumable form is particularly challenging. This past year Dietetic Service in VA evaluated foods developed by the Food Engineering Directorate U.S. Army Natick Research, Development, and Engineering Center which will meet the needs of many elderly patients with swallowing or chewing difficulties. These foods are modified consistency products and are presently produced by the Dietetic Services, but they are labor intensive. Over the next year, these foods will be tested in a number of the VA medical centers for future use.

National Training Program on Health Care Problems of the Elderly (also see p. 36) was planned and conducted on a limited basis with plans to continue this year. The thrust of the educational program is to promote multidisciplinary care to improve quality and the cost effective utilization of resources. Each health care team member (7 disciplines) challenges each of the other disciplines to utilize their expertise and become involved in the treatment goals of the other disciplines. The medical centers must send a core team of health care providers to the training program and return to develop an action plan. Follow-up and evaluation is being provided to improve future programs.

Some of the Dietetic Services have been investigating the feeding problems of the elderly patient. Many of the these patients either cannot or will not feed themselves when hospitalized. This is a multi-factorial problem. Many of the medical centers have begun to include the evaluation of "adequate nutritional intake" into their total quality management program.

Determining the nutritional care needs and developing a care plan to achieve these goals is very complex when managing an older person. In order to concentrate efforts on this large segment of our population, Geriatric Nutrition Specialist positions are being established in our Nursing Homes and other extended care programs.

IV. OFFICE OF ADMINISTRATION

Voluntary Service

VA continues to address the problems of elderly veterans by developing programs that utilize volunteers, and allow veteran patients to remain in their own communities as an alternative to hospitalization. Examples of these programs include: Telecare, Lifeline, the Senior Companion Program, the Home Assessment Project, Mobile Clinics, Hospital Based Home Care and the Retired Senior Volunteer program.

o Telecare as implemented at VAMC Kansas City, MO, involves volunteers calling on a daily basis housebound veteran patients who live alone. This assures those veterans they are cared about and that they can communicate daily with someone if they have a problem with their medication or health.

- Loma Linda VAMC has an excellent example of Lifeline. In this case volunteer organizations not only fund but volunteers actually install the Lifeline system which enables the veteran patient to summon immediate medical assistance via a transmitter.

- The Senior Companion Program, funded by Action Agency, pairs a volunteer with a veteran patient soon to be discharged. This Senior Companion maintains the relationship with the veteran patient through the discharge process and during readjustment to the community.

- The Disabled American Veterans are presently funding the Home Assessment Project, administered by the GRECC at VAMC Sepulveda, CA. This project coordinates volunteer efforts in assessing the safety and convenience of domiciles to which the veteran patient has returned or is returning. Not only do the volunteers make the assessment, they take appropriate action to correct any housing deficiencies.

- Volunteers working with mobile clinics sent from VAMCs to distant catchment areas, make arrangements for appropriate space and supplemental staff for these clinics on wheels.

- Volunteers assigned to the Hospital-Based Home Care Program provide both respite care and companionship during their weekly visits to homebound veterans.

- Retired Senior Volunteers are part of the medical facilities' efforts to allow elderly veterans to remain in their home environment instead of being returned/admitted to the medical center. These volunteers assist in routine activities with which the veteran may have problems in the home environment. These routine activities may include check writing, food preparation, personal shopping, or light housekeeping.

There are additional examples of VA medical care facilities where other programs are being developed for the long-term care and/or elderly veteran patient, and have been shared across the country. The Silver Spoon Project, originating at the VAMC in Loma Linda, CA, involves volunteers willing to make a monthly commitment to feed patients who are able to eat but who are unable to feed themselves. Family Day activities at Brooklyn and Dayton VAMCs are sponsored by the volunteers and offer a rare treat to veteran patients who have family living some distance away. Veterans are encouraged to invite family members for a day of fun, entertainment, and good food. The volunteers sponsor the activity and provide the serving of refreshments. At the nursing home in St. Albans (a division of VAMC Brooklyn) elderly veterans have the opportunity to invite up to six family members to a special birthday dinner. A separate formal dining room, china and silver are provided by the volunteer organizations who also fund the guests' dinners. Sepulveda VAMC, among those health care facilities with a GRECC, remains in the forefront of innovative programs for the elderly veterans. The VIP volunteer program began using older active volunteers on a one-to-one basis with elderly veteran patients. The success of this program has been outstanding and they have since used youth volunteers and family group volunteering with these patients. These types of activities assist hospitalized veterans in maximizing the benefits of VA care, and in eliminating social isolation.

V. OFFICE OF DENTISTRY

Dentistry is an integral part of any comprehensive health care program for the elderly. Freedom from tooth-related pain is a primary objective, of course, but there are a number of other major concerns. The incidence of many oral diseases that do not initially cause pain, from periodontitis to cancer, increases significantly with advancing years. Additionally, many older people lose a sufficient number of teeth to interfere with effective mastication, so that nutritional deficiencies and gastrointestinal problems are a common result. Perhaps as important, the ability to enjoy a varied, interesting diet is compromised -- a factor in quality of life. Similarly, the integrity of the dental complex plays a major role in facial appearance and in oral communication, which are so important to self-image and societal function.

VA is pledged to "provide elderly veterans with a range of medical and health services that are designed to restore and/or maintain optimal levels of health, foster independent living, and improve overall quality of life." With this in mind, the VA Office of Dentistry is involved in a number of initiatives to cope with the dental health needs of the burgeoning numbers of older veterans.

The VA Dentist Geriatric Fellowship Program is now in its eighth year of operation and expanding last year from five training sites to six. The first five dentists who entered this program completed their two-year program in June of 1984. The Office of Dentistry implemented a plan whereby interested VA health care facilities submitted proposals that outline their intended use of such an uniquely trained individual. Facilities with approved programs that successfully recruited a graduate received FTE and funding for their placement. This mechanism has allowed us to retain the majority of the graduates for service with VA. Twenty-two of them are currently employed at VA medical centers across the country. In addition, judging by publications, honors, and offices held, they have taken their places among the leaders in dental geriatrics both nationally and internationally. At their individual facilities, their responsibilities vary, but most of these dental geriatricians have also developed clinical programs at VA facilities within their medical districts as well as establishing linkages with community and university endeavors. The special efforts to employ these individuals allows continuing evaluation of the training programs in geriatric dentistry and an opportunity to measure the contributions of graduates against the time and funding dedicated to the Fellowship Program itself.

Although there is considerable interest directed at the Geriatric Fellowship Programs and at the facilities that now employ dentists who are especially trained in geriatrics, other VA dental facilities are not without their concerns and programs for the aging veteran. VA dental personnel at all levels are aware of the rapid aging of the veteran population. Elderly patients are treated on a daily basis and most facilities now have at least one dentist who has attended a continuing education course in geriatric dentistry or a course in hospital dentistry that emphasized special care for the elderly. Facilities with special expertise in geriatric dentistry are now being encouraged to add a second year to their General Practice Residency (GPR) programs to concentrate on gerontology and clinical care of the older adult.

An area of particular concern to VA dentistry is the oral health needs of veteran patients in VA extended care facilities. Often frail and functionally impaired, many of these patients have extensive oral health needs and present a significant challenge for the dental staff. The Program Guide: Oral Health Guidelines for Long Term Care Patients, developed several years ago by VA Office of Dentistry, continues to serve as the primary handbook for management of the multidisciplinary efforts required to meet their needs.

The VA's impact on geriatric dentistry is not limited to its own health care system, but extends to the national scene as well. The ACMD for Dentistry regularly participates in the NIDR (National Institute for Dental Research) group that is involved in reviewing oral health promotion and disease prevention initiatives throughout the country. VA also has been represented on a Surgeon General's Workshop relating to the same topic. In education, the American Association of Dental Schools (AADS) has an ongoing Geriatric Education Project. Its goal is to enhance the quality of dental services that are available to older people in the U.S. by improving the teaching of geriatric dentistry in dental and dental hygiene schools. VA dentists participate, playing a major role, in the working committees formed to design curriculum and identify resource material for faculty utilization.

In research, the VA has been involved in a collaborative project since 1984 with the National Institute on Aging (NIA) and the National Institute of Dental Research (NIDR). The project emerged from discussions among the Directors of the NIA and NIDR, Dr. Franklin Williams and Dr. Harold Loe, respectively, and the then Assistant Chief Medical Director for Dentistry, Dr. Robert R. Rhyne. They agreed to pursue a project that would produce three products: a research agenda for oral health and related problems in the elderly, a catalog of relevant resources and activities, and an implementation plan that would recommend cooperative efforts between the three agencies in response to high priority research questions. A core staff and a Project Advisory Panel that represented the three organizations were appointed, and the project has since begun its implementation phase. An initial venture resulted in the funding of a research center on oral health and aging as a cooperative effort of the VA Medical Center in Gainesville, Florida and the University of Florida College of Dentistry. Currently, a collaboration of the same federal agencies is involved in the design of a five-year fellowship to develop advanced research and clinical skills in oral health for the elderly.

The Office of Dentistry staff and consultants have completed the analysis phase of a project that surveyed oral health needs of patients in VA nursing homes. The results will be used to enhance oral health programs as well as to project present and future needs for manpower and other resources. Similarly, two former Geriatric Fellows, now on VA staff, are currently studying the oral health needs of Hospital-Based Home Care (HBHC) patients.

VI. OFFICE OF RESEARCH AND DEVELOPMENT

Health Services Research and Development

The Health Services Research and Development (HSR&D) Service supported many HSR&D activities that were related to aging: to clarify options, estimate costs (organizational, human, economic) and to provide information to make rational choices among alternative health care interventions.

Each of the Service's three major program areas emphasized HSR&D in aging. The HSR&D Field Program, which implements the Service's mission nationwide and fosters integration of research with practice, continued to conduct many projects related to aging. Those supported in 1989 addressed such areas as: evaluation of several elderly care approaches (e.g., domiciliary, hospital-based home care, nursing homes, geriatric units); the use and impact of social support and helping networks for ill elderly veterans; exploring cost-effectiveness and clinical utility of alternative approaches for caring for dementia patients; alcoholism among the elderly; oral health among older veterans; and homeless veterans in domiciliary care.

The Northwest Regional HSR&D Field Program System Wide Resource on Aging continued to provide leadership and technical assistance in this area. Most notably, this program continued collaboration with the VA's Office of Geriatrics and Extended Care to conduct the Congressionally mandated evaluation of the cost-effectiveness of adult day health care (ADHC). The first phase of this study is a randomized controlled trial to evaluate ADHC provided by VA with its own staff. Enrollment for this phase was completed in January 1989. The second phase is a non-randomized evaluation to study ADHC provided by community programs under contract to VA. Patient enrollment in these sites began in September, 1989. Products from the pilot work for this study already are being disseminated; these include method- ological advances in measuring medical efficacy, utilization, and cost. Field program editors and authors also published this year a major book, Health Care of the Elderly: An Information Sourcebook. VA distributed the book to all VA medical centers; it also is available from the publisher.

Approximately 34 percent of the Service's ninety 1989 investigator-initiated research projects addressed issues of particular importance to our aging veterans. These projects originated from twenty-two (22) different VA field locations. Research topics include: the effectiveness and efficiency of a caregiver support program; cost-effective post-discharge care for elderly veterans; the use of community volunteers in the rehabilitation of older veterans; cost-effectiveness of hospital-based home care; an information synthesis of interventions to improve nursing home care; evaluation of a hospice approach to measurement of Alzheimer patients; periodontitis in aging veterans; and nutrition in health for elderly veterans.

XIII. OFFICE OF ACADEMIC AFFAIRS

All short and long range plans of VHS&RA that addressed health care needs of the Nation's growing population of elderly veterans include training activities supported by the Office of Academic Affairs (OAA). The training of health care professionals in the area of geriatrics/gerontology is an important component in a variety of programs conducted at VA medical centers in collaboration with affiliated academic institutions. Work with geriatric patients is an integral part of the clinical experience of the nearly 100,000 health trainees including 30,000 resident physicians and 44,000 nursing and associated health students who train in VA medical centers each year as part of an affiliation agreement between the VA and nearly 1,000 health professional schools, colleges and university health science centers. Recognizing the challenges presented by the ever increasing size of the aging veteran population, the OAA has made great strides in promoting and coordinating interdisciplinary geriatric and gerontological programs in VA medical centers and in their affiliated academic institutions.

The Office of Academic Affairs, in the VHS&RA, supports geriatric education and training activities in the following special programs:

VA Fellowship Programs in Geriatrics for Physicians. The issue of whether or not geriatrics should be a separate medical specialty or a subspecialty was resolved in September 1987 when the Accreditation Council for Graduate Medical Education (ACGME) approved Geriatric Medicine as an area of special competence. Effective January 1988, the American Board of Internal Medicine and the American Board of Family Practice specified procedures for the certification of added qualifications in geriatric medicine. VA played a critical role in the development and recognition of geriatric medicine in the United States, and as of AY 1989-90, any VA medical center may conduct fellowship training in geriatrics, providing an ACGME accredited program is in place.

The demand for physicians with special training in geriatrics and gerontology continues unabated because of the rapidly advancing numbers of elderly veterans and aging Americans. The VA health care system offers clinical, rehabilitation, and follow-up patient care services, as well as education, research, and interdisciplinary programs that constitute the support elements that are required for the training of physicians in geriatrics. Since 1978-79 this special training has been accomplished through the VA Fellowship Program in Geriatrics conducted at VA medical centers affiliated with medical schools. The 12 initial training sites increased to 20 in 1986 and to 24 in 1989.

These fellowships are designed to develop a cadre of physicians who are committed to clinical excellence and to becoming leaders of local and national geriatric medical programs. Their dedication to innovative and thorough geriatric patient care is expected to produce role models for medical students and for residents. The two-year fellowship curriculum incorporates clinical, pharmacological, psychosocial, education, and research components that are related to the full continuum of treatment and health care of the elderly. A third year for research is available on a competitive basis.

During it's 11-year history, the program has attracted physicians with high quality academic and professional backgrounds in internal medicine, psychiatry, neurology and family practice. Their genuine interest in the well-being of elderly veterans is apparent from high VA retention rate after completing the fellowship training. Many of the Fellows have published articles on geriatric topics in nationally recognized professional journals, and several Fellows have authored or edited books on geriatric medicine and medical ethics. The number of recipients of important awards and research grants (AGS/Pfizer, Kaiser, NIA and VA) increases each year.

As of June 89; 206 Fellows had completed the program in ten successive groups: 1980 - 8; 1981 - 12; 1982 - 16; 1983 - 19; 1984 - 23; 1985 - 22; 1986 - 27, 1987 - 23, 1988 - 28, and 1989 - 27. About 45 percent remain in the VA system as full or part-time employees. Close to 50 percent of all graduates hold academic appointments. The VA group of 206 fellowship alumni/ae represents the largest single agency contribution to the pool of trained geriatricians in the United States.

VA Dentist Geriatric Fellowship Program. In July 1982, two-year Dentist Geriatric Fellowship Programs (see also p. 44) commenced at five medical centers that are affiliated with schools of Dentistry. The goals of this program are similar to those described for the Physician Fellowship Program in Geriatrics. As of June 1989, 30 Dentist Fellows had completed their special training. In 1988, the number of training sites increased to six, and beginning in 1990, six dentist fellows per year are expected to graduate. Nearly 90 percent of the program alumni/ae have accepted offers of post fellowship employment in the VA system. Most serve in academically oriented positions mainly in VA district offices. Through their teaching and research activities, they reach large numbers of residents and students and thus influence geriatric dental health care far beyond the confines of the VA health care system.

Interdisciplinary Team Training in Geriatrics. Interdisciplinary Team Training in Geriatrics (ITTG) is a systematic educational program that is designed to include didactic and clinical instruction for VA faculty practitioners and affiliated students from three or more health professions such as physicians, nurses, psychologists, social workers, pharmacists and occupational and physical therapists. The ITTG provides a structured approach to the delivery of health services by emphasizing the knowledge and skills needed to work in an interactive group. In addition, the program promotes an understanding of the roles and functions of other members of the team and how their collaborative contributions influence both the delivery and outcome of patient care.

The ITTG Program has been activated at 12 VA medical centers. Two sites, located at VA Medical Centers (VAMCs) Portland, Oregon, and Sepulveda, California were designated in 1979. Three additional VA sites at Little Rock, Arkansas; Palo Alto, California; and Salt Lake City, Utah, were selected in 1980; and VAMCs Buffalo, New York; Madison, Wisconsin; Coatesville, Pennsylvania; and Birmingham, Alabama, were approved in 1982. In the Spring of 1983, three sites were selected at VAMCs Tucson, Arizona; Memphis, Tennessee; and Tampa, Florida.

The purposes of the ITTG program are to develop a cadre of health practitioners with the knowledge and competencies that are required to provide interdisciplinary team care to meet the wide spectrum of health care and service needs of the aged veteran; to provide leadership in interdisciplinary team delivery and training to other VA medical centers; and to provide role models for affiliated students in medical and associated health disciplines. Training includes the teaching of staff and students about the aging process; instruction in team teaching and group process skills for clinical core staff; and clinical experiences in team care for affiliated education students with the core team serving as role models. During FY 1989, 193 students from a variety of health care disciplines were provided funding support at the 12 model ITTG sites.

Clinical Nurse Specialist. Clinical nurse training is another facet of VA education programming in geriatrics. The need for specially trained graduate level clinical nurse specialists is evidenced by the sophisticated level of care needed by the VA patient population, specifically in the area of geriatrics. Advanced nurse training is a high priority within the VA because of the shortage of such nursing specialists who are capable of assuming positions in specialized care and leadership.

The Clinical Nurse Specialist Program was established in 1981 to attract clinical specialist students to the VA and to help meet requirement needs in the VA priority areas of geriatrics, rehabilitation, and psychiatric/mental health, all of which impact on the care of the elderly veteran. During FY 1988-89 the critical care pathway was added to the program. Direct funding support is provided to master's level nurse specialist students for their clinical practicum at the VA medical centers that are affiliated with the academic institutions in which they are enrolled. In Fiscal Year 1989, 109 master's level clinical nurse specialist student positions were supported at 35 VA medical centers; 31 in geriatrics; 2 in rehabilitation; and 37 in psychiatric mental/health; and 39 in critical care.

VA Gerontological Nurse Fellowship Program. Gerontological nursing has been a nursing specialty since the mid-1960's. As society changes, particularly in terms of the demographic trend in aging, more attention is being focused on both the area of gerontological nursing and the education of nurses in this specialty. Doctoral level nurse gerontologists are prepared for advanced clinical practice, teaching, research, administration, and policy formulation in adult development and aging.

Effective FY 1989-90, a two-year nurse fellowship program became operational for registered nurses who are doctoral candidates enrolled in doctoral level programs, and whose doctoral dissertations have clinical research foci in geriatrics/gerontology. It is planned to select and fund two nurse fellows each fiscal year at approved VA medical center sites. Initial appointments will be for one-year. Reappointments of one additional year are subject to satisfactory first year's performance evaluations. It is anticipated that at least half of the participants who complete this VA fellowship will be recruited within the VA system.

Expansion for Associated Health in Geriatrics. A special priority for geriatric education and training is recognized in the allocation of associated health training positions and funding support to VA medical centers hosting GRECCs, and to VA Medical Centers (non- ITTG/GRECC sites) that offer specific educational and clinical programs for the care of older veterans. In FY 1989, a total of 150 associated health students received funding support at 67 VA facilities in the following disciplines: Social Work; Psychology; Optometry; Audiology/Speech Pathology; Clinical Pharmacy; Clinical Nurse Specialist; Occupational Therapy; and Podiatry.

Expansion for Medical and Dental Residents in Geriatrics. In order to expand the involvement of medical and dental residents in the care of older veterans, a special program for geriatric education and training was initiated in FY 1983. This program provides residency positions and funds to VA medical centers that host GRECCs and to VA medical centers offering specific clinical programs and training experiences for the care of geriatric patients.

In FY 1988, 120 medical and dental positions were approved at about 60 VA facilities for the training of residents in the assessment, treatment and rehabilitation of the older veteran.

Continuing Education. In support of the VA's mission to provide health care to the aging veteran population, education and training continues to be offered to enhance VA medical center staff skills in the area of geriatrics. These educational activities are designed to respond to the needs of VA health care personnel throughout the entire Veterans Health Services and Research Administration. Annually, Postgraduate and In-Service Training (PIT) funds are distributed to two levels of the organization for support of continuing education activities in priority areas.

First. Program 870 (Core PIT) funds are provided to each of the VA medical centers to meet the continuing education needs of its employees. Approximately $152,000 of facility-oriented monies supported training activities in geriatrics during FY 1989. VACO also allocates funds for VAMC-initiated programs to allow health care facilities, with assistance from a Regional Medical Education Center (RMEC), to conduct education programs within the hospital to meet locally identified training needs. Approximately $15,000 of VAMC-initiated funds were used to support 18 separate activities.

Second. Continuing Education Field Units (CEFUs), which include seven Regional Medical Education Centers (RMECs), eight Cooperative Health Education programs (CHEPs), two Dental Education Centers (DECs), and two Continuing Education Centers (CECs) meet education needs by conducting programs at the regional and local medical center level. Examples of recent programs are:

- Practical Management of Common Geriatric Problems
- Developing Sensitivity to the Older Patient
- Nutritional Needs of the Elderly
- Health Care Issues in the Aging Population
- Depression in the Elderly: Is It Different?
- Caring for Our Elders: Mental Health Assessment
- Dental Care and the Elderly
- Suicide/Crisis Intervention in the Elderly
- Clinical Pharmacology in Dental Practice

RMEC programs are also conducted in cooperation with the GRECCs, which received $158,000 in PIT funds to support their identified needs. This collaborative effort ensures the efficient use of existing resources to meet the increasing demands for training in geriatrics/gerontology. For example, the GRECCs have met some of the training needs identified by RMECs and RMECs have utilized GRECC staff as faculty for their programs.

During FY 1989, the Continuing Education Field Units conducted 204 education activities in the area of geriatrics which were attended by approximately 6,492 VA participants and 2,208 non-VA participants.

In FY 1988, the issue of "Health Care Problems of the Elderly" was identified as a systemwide training need in the VA. In response to this need, a National Training Program was developed and implemented in fiscal year 1989. "Health Care Problems of the Elderly" is a multi-year program providing training throughout the VA system. Another multi-year National Training Program, "Alternatives to Acute Institutional Care", was initiated in Region III for VAMC health care teams. This program will continue and expand to other VAMCs during 1990.

In addition, CORE PIT funds are provided to support continuing education experiences for the Geriatric Fellows and Interdisciplinary Team Training in Geriatrics staff members.

Health Professional Scholarship Program. The Scholarship Program was established in 1980 and funded from 1982 through 1985 to assist in providing an adequate supply of nurses for the VA and the nation. In 1988 the Scholarship Program was reactivated to provide scholarships to students in full-time nursing and physical therapy baccalaureate and master degree programs in certain specialties specified by the VA. Since the beginning of the program, 38 awards have been given to students studying for advanced master's degrees in gerontological nursing. Of this number, 20 students have completed degrees and fulfilled their two-year service obligations by working as professionals in VA medical centers. Fifteen of these professional nurses are still employed by VA. The remaining students are in the process of completing their degrees, and will be beginning their service obligations in the near future.

Learning Resources. The widespread education and training activities in geriatrics have generated a broad spectrum of requirements for learning resources throughout the VA system. Local Library Services performed hundreds of on-line searches on data bases such as AGELINE (available through Bibliographic Retrieval Services), and continue to add books, journals, and audiovisuals (AVs) on topics related to geriatrics and aging. Multiple copies of two AV programs were made available nationwide for VA staff use through the VA Software Delivery System. The VACO Library continues to expand its collection of books, AVs, and journals concerning aging and geriatrics.

VIII. DEPARTMENT OF VETERANS BENEFITS

Compensation and Pension Programs

Disability and survivor benefits such as pension, compensation, and dependency and indemnity compensation administered by the Department of Veterans Benefits provide all, or part, of the income for 1,836,817 persons age 65 or older. This total includes 1,278,119 veterans, 522,613 surviving spouses, 31,079 mothers, and 5,006 fathers.

The Veterans' and Survivors' Pension Improvement Act of 1978, effective January 1, 1979, provided for a restructured pension program. Under this program, eligible veterans receive a level of support meeting a national standard of need. Pensioners generally receive benefits equal to the difference between their annual income from other sources and the appropriate income standard.

This Act provides for a higher income standard for veterans of World War I or the Mexican border period. This provision was in acknowledgement of the special needs of our older veterans. Effective December 1, 1988, an additional $1,461 is added to the basic pension rate. Effective December 1, 1989, the additional allowance will be $1,530. Pensioners receiving benefits under the prior program were provided the opportunity to elect to receive benefits under the new program.

Veterans Assistance Service

Veterans Services Division personnel maintain liaison with nursing homes, senior citizen homes, and senior citizen centers in regional office areas. Locations are visited as the need arises. Appropriate pamphlets and application forms are provided to personnel at these homes during visits and frequent use of regular mailings. State and Area Agencies on Aging (AAA) have been identified and are provided information on VA benefits and services through workshops and training sessions. Seminars are conducted for nursing home operators and other service providers that assist and serve this patient population. Regional Office coordinators continue to serve on local and state task forces that deal extensively with the problems of the elderly.

The Veterans Assistance Services exhibit, "Veterans Benefits for Older Americans," highlights, by pictures and accompanying text, the various benefits explained in the pamphlet of the same title (VA Pamphlet 27-80-2). The exhibit, designed to convey the VA's concern with the aging veteran populations, has been displayed extensively at meetings addressing problems of aging. The pamphlet was given wide distribution at the President's Committee on Employment of People with Disabilities and the National Council on Aging conferences, and by information and referral representatives at field stations.

The elderly as a group encounter problems with transportation due to rising costs, limited income, and most importantly, physical ailments. Thus, Veterans Assistance Service continues to emphasize the use of the toll-free telephone service as a means of contacting their offices for information and assistance.

A special listing of aged beneficiaries has been furnished to regional office Veterans Services Divisions (VSD's) for individualized outreach use. Veterans and/or dependents are being contacted and provided with information and claims assistance on any additional VA benefits that may be applicable to them. One of the reasons for this outreach program is our concern that large numbers of our older population are "at risk" and, as such, they may be unaware of the higher income limitations available under the pension program, i.e., housebound status and aid and attendance. Moreover, we are convinced that many are unaware of the impact of unreimbursed medical expenses on pension eligibility.

In January of 1989, Veterans Assistance Service obtained a national listing of long-term care facilities and updated rosters of State Area Agencies on Aging (AAA's) and State Long Term Care Ombudsmen. These rosters were forwarded to regional office Veterans Services Division with a request that a letter be sent to all the nursing home directors soliciting their support in identifying possible VA beneficiaries in their nursing home facilities. The State Area Agencies on Aging and Long Term Care Ombudsmen were asked to assist in this identification program. Activity in this program is reported to Veterans Assistance Service on the quarterly narrative report.

An outreach program of service to homeless veterans, to include those who are elderly and ill, has been initiated by Veterans Benefits Administration (VBA) in cooperation with Veterans Health Services and Research Administration, Social Work Service, and Vet Center Team Leaders.